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<212> DNA

<213> Homo sapiens

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<210> 14
<211> 1911
<212> DNA
<213> Homo sapiens

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<210> 15
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<212> DNA
<213> Homo sapiens

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<210> 16
<211> 2913
<212> DNA
<213> Homo sapiens

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<210> 17
<211> 3695
<212> DNA
<213> Homo sapiens

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<211> 1535
<212> DNA
<213> Homo sapiens

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<210> 19
 <211> 3877
 <212> DNA
 <213> Homo sapiens

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<211> 1717
<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<210> 26
<211> 1643
<212> DNA
<213> Homo sapiens

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<211> 2713
<212> DNA
<213> Homo sapiens

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 <212> DNA
 <213> Homo sapiens

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<210> 29
<211> 540
<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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<210> 31
<211> 2307
<212> DNA
<213> Homo sapiens

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<211> 1712
<212> DNA
<213> Homo sapiens

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<210> 33
<211> 1068
<212> DNA
<213> Homo sapiens

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<210> 34
<211> 1388
<212> DNA
<213> Homo sapiens

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<210> 35
<211> 1452
<212> DNA
<213> Homo sapiens

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<211> 2355
<212> DNA
<213> Homo sapiens

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<210> 37

<211> 497

<212> PRT

<213> Homo sapiens

<400> 37

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20 25 30

Gln Ala Lys Lys Val Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala
35 40 45

Glu Asn Lys Asp Glu Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr
50 55 60

Asp Asn Pro Leu Ser Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His
65 70 75 80

Arg His Leu Met Leu Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Ser
85 90 95

Lys Ile Gln Pro Gly Ser Gln Gln Ala Asp Phe Leu Asp Ala Leu Ile
100 105 110

Val Ser Met Asp Val Ile Gln His Glu Thr Ile Gly Lys Lys Phe Glu
115 120 125

Lys Arg His Ile Glu Ile Phe Thr Asp Leu Ser Ser Arg Phe Ser Lys
130 135 140

Ser Gln Leu Asp Ile Ile Ile His Ser Leu Lys Lys Cys Asp Ile Ser
145 150 155 160

Leu Gln Phe Phe Leu Pro Phe Ser Leu Gly Lys Glu Asp Gly Ser Gly

165					170					175					
Asp	Arg	Gly	Asp	Gly	Pro	Phe	Arg	Leu	Gly	Gly	His	Gly	Pro	Ser	Phe
			180					185					190		
Pro	Leu	Lys	Gly	Ile	Thr	Glu	Gln	Gln	Lys	Glu	Gly	Leu	Glu	Ile	Val
		195					200					205			
Lys	Met	Val	Met	Ile	Ser	Leu	Glu	Gly	Glu	Asp	Gly	Leu	Asp	Glu	Ile
	210					215					220				
Tyr	Ser	Phe	Ser	Glu	Ser	Leu	Arg	Lys	Leu	Cys	Val	Phe	Lys	Lys	Ile
225						230					235				240
Glu	Arg	His	Ser	Ile	His	Trp	Pro	Cys	Arg	Leu	Thr	Ile	Gly	Ser	Asn
				245					250					255	
Leu	Ser	Ile	Arg	Ile	Ala	Ala	Tyr	Lys	Ser	Ile	Leu	Gln	Glu	Arg	Val
			260					265					270		
Lys	Lys	Thr	Trp	Thr	Val	Val	Asp	Ala	Lys	Thr	Leu	Lys	Lys	Glu	Asp
		275					280					285			
Ile	Gln	Lys	Glu	Thr	Val	Tyr	Cys	Leu	Asn	Asp	Asp	Asp	Glu	Thr	Glu
	290					295					300				
Val	Leu	Lys	Glu	Asp	Ile	Ile	Gln	Gly	Phe	Arg	Tyr	Gly	Ser	Asp	Ile
305						310					315				320
Val	Pro	Phe	Ser	Lys	Val	Asp	Glu	Glu	Gln	Met	Lys	Tyr	Lys	Ser	Glu
				325					330					335	
Gly	Lys	Cys	Phe	Ser	Val	Leu	Gly	Phe	Cys	Lys	Ser	Ser	Gln	Val	Gln
			340					345					350		
Arg	Arg	Phe	Phe	Met	Gly	Asn	Gln	Val	Leu	Lys	Val	Phe	Ala	Ala	Arg
		355					360					365			
Asp	Asp	Glu	Ala	Ala	Ala	Val	Ala	Leu	Ser	Ser	Leu	Ile	His	Ala	Leu
	370					375					380				
Asp	Asp	Leu	Asp	Met	Val	Ala	Ile	Val	Arg	Tyr	Ala	Tyr	Asp	Lys	Arg
385						390					395				400
Ala	Asn	Pro	Gln	Val	Gly	Val	Ala	Phe	Pro	His	Ile	Lys	His	Asn	Tyr
				405					410					415	
Glu	Cys	Leu	Val	Tyr	Val	Gln	Leu	Pro	Phe	Met	Glu	Asp	Leu	Arg	Gln
			420					425					430		
Tyr	Met	Phe	Ser	Ser	Leu	Lys	Asn	Ser	Lys	Lys	Tyr	Ala	Pro	Thr	Glu
		435					440					445			
Ala	Gln	Leu	Asn	Ala	Val	Asp	Ala	Leu	Ile	Asp	Ser	Met	Ser	Leu	Ala
	450					455					460				
Lys	Lys	Asp	Glu	Lys	Thr	Asp	Thr	Leu	Glu	Asp	Leu	Phe	Pro	Thr	Thr
465						470					475				480
Lys	Ile	Pro	Asn	Pro	Arg	Phe	Gln	Arg	Leu	Phe	Gln	Val	Arg	Glu	Glu
				485					490					495	

Gly

<210> 38
 <211> 521
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Val Arg Ser Gly Asn Lys Ala Ala Val Val Leu Cys Met Asp Val
 1 5 10 15
 Gly Phe Thr Met Ser Asn Ser Ile Pro Gly Ile Glu Ser Pro Phe Glu
 20 25 30
 Gln Ala Lys Lys Val Ile Thr Met Phe Val Gln Arg Gln Val Phe Ala
 35 40 45
 Glu Asn Lys Asp Glu Ile Ala Leu Val Leu Phe Gly Thr Asp Gly Thr
 50 55 60
 Asp Asn Pro Leu Ser Gly Gly Asp Gln Tyr Gln Asn Ile Thr Val His
 65 70 75 80
 Arg His Leu Met Leu Pro Asp Phe Asp Leu Leu Glu Asp Ile Glu Ser
 85 90 95
 Lys Ile Gln Pro Gly Ser Gln Gln Ala Asp Phe Leu Asp Ala Leu Ile
 100 105 110
 Val Ser Met Asp Val Ile Gln His Glu Thr Ile Gly Lys Lys Phe Glu
 115 120 125
 Lys Arg His Ile Glu Ile Phe Thr Asp Leu Ser Ser Arg Phe Ser Lys
 130 135 140
 Ser Gln Leu Asp Ile Ile Ile His Ser Leu Lys Lys Cys Asp Ile Ser
 145 150 155 160
 Leu Gln Phe Phe Leu Pro Phe Ser Leu Gly Lys Glu Asp Gly Ser Gly
 165 170 175
 Asp Arg Gly Asp Gly Pro Phe Arg Leu Gly Gly His Gly Pro Ser Phe
 180 185 190
 Pro Leu Lys Gly Ile Thr Glu Gln Gln Lys Glu Gly Leu Glu Ile Val
 195 200 205
 Lys Met Val Met Ile Ser Leu Glu Gly Glu Asp Gly Leu Asp Glu Ile
 210 215 220
 Tyr Ser Phe Ser Glu Ser Leu Arg Lys Leu Cys Val Phe Lys Lys Ile
 225 230 235 240
 Glu Arg His Ser Ile His Trp Pro Cys Arg Leu Thr Ile Gly Ser Asn
 245 250 255
 Leu Ser Ile Arg Ile Ala Ala Tyr Lys Ser Ile Leu Gln Glu Arg Val

260								265				270			
Lys	Lys	Thr	Trp	Thr	Val	Val	Asp	Ala	Lys	Thr	Leu	Lys	Lys	Glu	Asp
		275					280					285			
Ile	Gln	Lys	Glu	Thr	Val	Tyr	Cys	Leu	Asn	Asp	Asp	Asp	Glu	Thr	Glu
	290					295					300				
Leu	Asn	Pro	Pro	Ala	Glu	Val	Thr	Thr	Lys	Ser	Gln	Ile	Pro	Leu	Ser
305					310					315					320
Lys	Ile	Lys	Thr	Leu	Phe	Pro	Leu	Ile	Glu	Ala	Lys	Lys	Lys	Asp	Gln
				325					330					335	
Val	Thr	Ala	Gln	Glu	Ile	Phe	Gln	Asp	Asn	His	Glu	Asp	Gly	Pro	Thr
			340					345					350		
Ala	Lys	Lys	Leu	Lys	Thr	Glu	Gln	Gly	Gly	Ala	His	Phe	Ser	Val	Ser
		355					360					365			
Ser	Leu	Ala	Glu	Gly	Ser	Val	Thr	Ser	Val	Gly	Ser	Val	Asn	Pro	Ala
	370					375					380				
Glu	Asn	Phe	Arg	Val	Leu	Val	Lys	Gln	Lys	Lys	Ala	Ser	Phe	Glu	Glu
385					390					395					400
Ala	Ser	Asn	Gln	Leu	Ile	Asn	His	Ile	Glu	Gln	Phe	Leu	Asp	Thr	Asn
				405					410					415	
Glu	Thr	Pro	Tyr	Phe	Met	Lys	Ser	Ile	Asp	Cys	Ile	Arg	Ala	Phe	Arg
			420						425				430		
Glu	Glu	Ala	Ile	Lys	Phe	Ser	Glu	Glu	Gln	Arg	Phe	Asn	Asn	Phe	Leu
		435					440					445			
Lys	Ala	Leu	Gln	Glu	Lys	Val	Glu	Ile	Lys	Gln	Leu	Asn	His	Phe	Trp
	450					455					460				
Glu	Ile	Val	Val	Gln	Asp	Gly	Ile	Thr	Leu	Ile	Thr	Lys	Glu	Glu	Ala
465					470					475					480
Ser	Gly	Ser	Ser	Val	Thr	Ala	Glu	Glu	Ala	Lys	Lys	Phe	Leu	Ala	Pro
				485					490					495	
Lys	Asp	Lys	Pro	Ser	Gly	Asp	Thr	Ala	Ala	Val	Phe	Glu	Glu	Gly	Gly
			500					505					510		
Asp	Val	Asp	Asp	Leu	Leu	Asp	Met	Ile							
		515					520								

<210> 39

<211> 437

<212> PRT

<213> Homo sapiens

<400> 39

Met	Gly	Cys	Gly	Cys	Ser	Ser	His	Pro	Glu	Asp	Asp	Trp	Met	Glu	Asn
1				5					10					15	

Ile Asp Val Cys Glu Asn Cys His Tyr Pro Ile Val Pro Leu Asp Gly
 20 25 30
 Lys Gly Thr Leu Leu Ile Arg Asn Gly Ser Glu Val Arg Asp Pro Leu
 35 40 45
 Val Thr Tyr Glu Gly Ser Asn Pro Pro Ala Ser Pro Leu Gln Asp Asn
 50 55 60
 Leu Val Ile Ala Leu His Ser Tyr Glu Pro Ser His Asp Gly Asp Leu
 65 70 75 80
 Gly Phe Glu Lys Gly Glu Gln Leu Arg Ile Leu Glu Gln Ser Gly Glu
 85 90 95
 Trp Trp Lys Ala Gln Ser Leu Thr Thr Gly Gln Glu Gly Phe Ile Pro
 100 105 110
 Phe Asn Phe Val Ala Lys Ala Asn Ser Leu Glu Pro Glu Pro Trp Phe
 115 120 125
 Phe Lys Asn Leu Ser Arg Lys Asp Ala Glu Arg Gln Leu Leu Ala Pro
 130 135 140
 Gly Asn Thr His Gly Ser Phe Leu Ile Arg Glu Ser Glu Ser Thr Ala
 145 150 155 160
 Gly Ser Phe Ser Leu Ser Val Arg Asp Phe Asp Gln Asn Gln Gly Glu
 165 170 175
 Val Val Lys His Tyr Lys Ile Arg Asn Leu Asp Asn Gly Gly Phe Tyr
 180 185 190
 Ile Ser Pro Arg Ile Thr Phe Pro Gly Leu His Glu Leu Val Arg His
 195 200 205
 Tyr Thr Asn Ala Ser Asp Gly Leu Cys Thr Arg Leu Ser Arg Pro Cys
 210 215 220
 Gln Thr Gln Lys Pro Gln Lys Pro Trp Trp Glu Asp Glu Trp Glu Val
 225 230 235 240
 Pro Arg Glu Thr Leu Lys Leu Val Glu Arg Leu Gly Ala Gly Gln Phe
 245 250 255
 Gly Glu Val Trp Met Gly Tyr Tyr Asn Gly His Thr Lys Val Ala Val
 260 265 270
 Lys Ser Leu Lys Gln Gly Ser Met Ser Pro Asp Ala Phe Leu Ala Glu
 275 280 285
 Ala Asn Leu Met Lys Gln Leu Gln His Gln Arg Leu Val Arg Leu Tyr
 290 295 300
 Ala Val Val Thr Gln Glu Pro Ile Tyr Ile Ile Thr Glu Tyr Met Glu
 305 310 315 320
 Asn Gly Ser Leu Val Asp Phe Leu Lys Thr Pro Ser Gly Ile Lys Leu
 325 330 335
 Thr Ile Asn Lys Leu Leu Asp Met Ala Ala Gln Ile Ala Glu Gly Met

340	345	350
Ala Phe Ile Glu Glu Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala		
355	360	365
Asn Ile Leu Val Ser Asp Thr Leu Ser Cys Lys Ile Ala Asp Phe Gly		
370	375	380
Leu Ala Arg Leu Ile Glu Asp Ile His His Gln Val Arg Cys Val Val		
385	390	395
Phe Trp Asp Pro Ala Asp Gly Asn Cys His Pro Arg Pro His Pro Leu		
405	410	415
Pro Arg Asp Asp Gln Pro Gly Gly Asp Ser Glu Pro Gly Ala Arg Leu		
420	425	430
Pro His Gly Ala Pro		
435		

<210> 40
 <211> 567
 <212> PRT
 <213> Homo sapiens

<400> 40
 Met Gly Cys Gly Cys Ser Ser His Pro Glu Asp Asp Trp Met Glu Asn
 1 5 10 15
 Ile Asp Val Cys Glu Asn Cys His Tyr Pro Ile Val Pro Leu Asp Gly
 20 25 30
 Lys Gly Thr Leu Leu Ile Arg Asn Gly Ser Glu Val Arg Asp Pro Leu
 35 40 45
 Val Thr Tyr Glu Gly Ser Asn Pro Pro Ala Ser Pro Leu Gln Gly Asp
 50 55 60
 Pro Arg Gln Gln Gly Leu Lys Asp Lys Ala Cys Gly Ser Leu Ala Val
 65 70 75 80
 Gly Phe His Leu Ser Pro Thr Tyr Phe Leu Pro Gly Leu Ala Phe Leu
 85 90 95
 Val Pro His Pro Val Thr Pro Gly Phe Leu Pro Ile Pro Ala Arg Phe
 100 105 110
 Ser Leu Thr Pro Leu Val Phe Thr Asp Asn Leu Val Ile Ala Leu His
 115 120 125
 Ser Tyr Glu Pro Ser His Asp Gly Asp Leu Gly Phe Glu Lys Gly Glu
 130 135 140
 Gln Leu Arg Ile Leu Glu Gln Ser Gly Glu Trp Trp Lys Ala Gln Ser
 145 150 155 160
 Leu Thr Thr Gly Gln Glu Gly Phe Ile Pro Phe Asn Phe Val Ala Lys
 165 170 175

Ala Asn Ser Leu Glu Pro Glu Pro Trp Phe Phe Lys Asn Leu Ser Arg
 180 185 190
 Lys Asp Ala Glu Arg Gln Leu Leu Ala Pro Gly Asn Thr His Gly Ser
 195 200 205
 Phe Leu Ile Arg Glu Ser Glu Ser Thr Ala Gly Ser Phe Ser Leu Ser
 210 215 220
 Val Arg Asp Phe Asp Gln Asn Gln Gly Glu Val Val Lys His Tyr Lys
 225 230 235 240
 Ile Arg Asn Leu Asp Asn Gly Gly Phe Tyr Ile Ser Pro Arg Ile Thr
 245 250 255
 Phe Pro Gly Leu His Glu Leu Val Arg His Tyr Thr Asn Ala Ser Asp
 260 265 270
 Gly Leu Cys Thr Arg Leu Ser Arg Pro Cys Gln Thr Gln Lys Pro Gln
 275 280 285
 Lys Pro Trp Trp Glu Asp Glu Trp Glu Val Pro Arg Glu Thr Leu Lys
 290 295 300
 Leu Val Glu Arg Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Gly
 305 310 315 320
 Tyr Tyr Asn Gly His Thr Lys Val Ala Val Lys Ser Leu Lys Gln Gly
 325 330 335
 Ser Met Ser Pro Asp Ala Phe Leu Ala Glu Ala Asn Leu Met Lys Gln
 340 345 350
 Leu Gln His Gln Arg Leu Val Arg Leu Tyr Ala Val Val Thr Gln Glu
 355 360 365
 Pro Ile Tyr Ile Ile Thr Glu Tyr Met Glu Asn Gly Ser Leu Val Asp
 370 375 380
 Phe Leu Lys Thr Pro Ser Gly Ile Lys Leu Thr Ile Asn Lys Leu Leu
 385 390 395 400
 Asp Met Ala Ala Gln Ile Ala Glu Gly Met Ala Phe Ile Glu Glu Arg
 405 410 415
 Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser Asp
 420 425 430
 Thr Leu Ser Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu Ile Glu
 435 440 445
 Asp Asn Glu Tyr Thr Ala Arg Glu Gly Ala Lys Phe Pro Ile Lys Trp
 450 455 460
 Thr Ala Pro Glu Ala Ile Asn Tyr Gly Thr Phe Thr Ile Lys Ser Asp
 465 470 475 480
 Val Trp Ser Phe Gly Ile Leu Leu Thr Glu Ile Val Thr His Gly Arg
 485 490 495
 Ile Pro Tyr Pro Gly Met Thr Asn Pro Glu Val Ile Gln Asn Leu Glu

500	505	510
Arg Gly Tyr Arg Met Val Arg Pro Asp Asn Cys Pro Glu Glu Leu Tyr		
515	520	525
Gln Leu Met Arg Leu Cys Trp Lys Glu Arg Pro Glu Asp Arg Pro Thr		
530	535	540
Phe Asp Tyr Leu Arg Ser Val Leu Glu Asp Phe Phe Thr Ala Thr Glu		
545	550	555
		560
Gly Gln Tyr Gln Pro Gln Pro		
	565	

<210> 41
 <211> 192
 <212> PRT
 <213> Homo sapiens

<400> 41
Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala
1 5 10 15
Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu
20 25 30
Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro
35 40 45
Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val Ser Ser Glu
50 55 60
Glu Thr Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys Ser Asn Glu
65 70 75 80
Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp Asp His
85 90 95
Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp
100 105 110
Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu
115 120 125
Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu
130 135 140
Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly
145 150 155 160
Asp Ser Val Val Tyr Gly Leu Arg Ser Lys Ser Lys Lys Phe Arg Arg
165 170 175
Pro Asp Ile Gln Val Asn Pro Leu Thr Asp Thr Pro Asp Gly Ser Asp
180 185 190

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<400> 42
Met Glu Leu Gly Leu Pro Gln Val Pro Pro Ala Val Asp Ala Glu Leu
  1                    5                      10                15

Leu Cys Arg Phe Val Asp Arg Gly Leu Pro Tyr Pro Asp Val Ser Ser
      20                25                30

Ala Asn Thr Pro Pro Ala Val Gly Leu Ser Pro Pro Thr Pro Tyr Phe
      35                40                45

Glu Pro Cys Ala Leu Pro Ser Pro His Arg His Gln Leu Ala Glu Ala
  50                55                60

Ile Pro Cys Thr Leu Ala Val Ser Asn Pro His Thr Asp Ala Trp Lys
  65                70                75                80

Ser His Gly Leu Val Glu Val Ala Ser Tyr Cys Glu Glu Ser Arg Gly
      85                90                95

Asn Asn Gln Trp Val Pro Tyr Ile Ser Leu Gln Glu Arg
      100                105

```

35

Ala Cys Thr Ser Gly Asp Leu Pro Gly Cys Ser Cys Gly Pro Val Pro
130 135 140

Gly Glu Pro Pro Gly Pro Gly Asn Arg Trp Gly Arg Cys Ala Asp Asn
145 150 155 160

Leu Ser Tyr Gly Leu Leu Met Gly Ala Lys Phe Ser Asp Ala Pro Met
165 170 175

Lys Val Lys Lys Thr Gly Ser Gln Ala Asn Lys Leu Met Arg Leu His
180 185 190

Asn Ser Glu Val Gly Arg Gln Ala Leu Arg Ala Ser Leu Glu Met Lys
195 200 205

Cys Lys Cys His Gly Val Ser Gly Ser Cys Ser Ile Arg Thr Cys Trp
210 215 220

Lys Gly Leu Gln Glu Leu Gln Asp Val Ala Ala Asp Leu Lys Thr Arg
225 230 235 240

Tyr Leu Ser Ala Thr Lys Val Val His Arg Pro Met Gly Thr Arg Lys
245 250 255

His Leu Val Pro Lys Asp Leu Asp Ile Arg Pro Val Lys Asp Ser Glu
260 265 270

Leu Val Tyr Leu Gln Ser Ser Pro Asp Phe Cys Met Lys Asn Glu Lys
275 280 285

Val Gly Ser His Gly Thr Gln Asp Arg Gln Cys Asn Lys Thr Ser Asn
290 295 300

Gly Ser Asp Ser Cys Asp Leu Met Cys Cys Tyr Val Thr Cys Arg Arg
305 310 315 320

Cys Glu Arg Thr Val Glu Arg Tyr Val Cys Lys
325 330

<210> 44
<211> 237
<212> PRT
<213> Homo sapiens

<400> 44
Met Arg Ala Arg Pro Gln Val Cys Glu Ala Leu Leu Phe Ala Leu Ala
1 5 10 15

Leu Gln Thr Gly Val Cys Tyr Gly Ile Lys Trp Leu Ala Leu Ser Lys
20 25 30

Thr Pro Ser Ala Leu Ala Leu Asn Gln Thr Gln His Cys Lys Gln Leu
35 40 45

Glu Gly Leu Val Ser Ala Gln Val Gln Leu Cys Arg Ser Asn Leu Glu
50 55 60

Leu Met His Thr Val Val His Ala Ala Arg Glu Val Met Lys Ala Cys
65 70 75 80

```

<210> 45
<211> 615
<212> PRT
<213> Homo sapiens

<400> 45
Met Ser Pro Phe Leu Arg Ile Gly Leu Ser Asn Phe Asp Cys Gly Ser
 1          5          10          15
Cys Gln Ser Cys Gln Gly Glu Ala Val Asn Pro Tyr Cys Ala Val Leu
          20          25          30
Val Lys Glu Tyr Val Glu Ser Glu Asn Gly Gln Met Tyr Ile Gln Lys
          35          40          45
Lys Pro Thr Met Tyr Pro Pro Trp Asp Ser Thr Phe Asp Ala His Ile
          50          55          60
Asn Lys Gly Arg Val Met Gln Ile Ile Val Lys Gly Lys Asn Val Asp
 65          70          75          80
Leu Ile Ser Glu Thr Thr Val Glu Leu Tyr Ser Leu Ala Glu Arg Cys
          85          90          95
Arg Lys Asn Asn Gly Lys Thr Glu Ile Trp Leu Glu Leu Lys Pro Gln
          100          105          110
Gly Arg Met Leu Met Asn Ala Arg Tyr Phe Leu Glu Met Ser Asp Thr

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115					120					125					
Lys	Asp	Met	Asn	Glu	Phe	Glu	Thr	Glu	Gly	Phe	Phe	Ala	Leu	His	Gln
	130					135					140				
Arg	Arg	Gly	Ala	Ile	Lys	Gln	Ala	Lys	Val	His	His	Val	Lys	Cys	His
	145					150					155				160
Glu	Phe	Thr	Ala	Thr	Phe	Phe	Pro	Gln	Pro	Thr	Phe	Cys	Ser	Val	Cys
				165					170					175	
His	Glu	Phe	Val	Trp	Gly	Leu	Asn	Lys	Gln	Gly	Tyr	Gln	Cys	Arg	Gln
			180					185					190		
Cys	Asn	Ala	Ala	Ile	His	Lys	Lys	Cys	Ile	Asp	Lys	Val	Ile	Ala	Lys
		195					200					205			
Cys	Thr	Gly	Ser	Ala	Ile	Asn	Ser	Arg	Glu	Thr	Met	Phe	His	Lys	Glu
	210					215					220				
Arg	Phe	Lys	Ile	Asp	Met	Pro	His	Arg	Phe	Lys	Val	Tyr	Asn	Tyr	Lys
	225					230					235				240
Ser	Pro	Thr	Phe	Cys	Glu	His	Cys	Gly	Thr	Leu	Leu	Trp	Gly	Leu	Ala
				245					250					255	
Arg	Gln	Gly	Leu	Lys	Cys	Asp	Ala	Cys	Gly	Met	Asn	Val	His	His	Arg
			260					265					270		
Cys	Gln	Thr	Lys	Val	Ala	Asn	Leu	Cys	Gly	Ile	Asn	Gln	Lys	Leu	Met
		275					280					285			
Ala	Glu	Ala	Leu	Ala	Met	Ile	Glu	Ser	Thr	Gln	Gln	Ala	Arg	Cys	Leu
	290					295					300				
Arg	Asp	Thr	Glu	Gln	Ile	Phe	Arg	Glu	Gly	Pro	Val	Glu	Ile	Gly	Leu
	305					310					315				320
Pro	Cys	Ser	Ile	Lys	Asn	Glu	Ala	Arg	Pro	Pro	Cys	Leu	Pro	Thr	Pro
				325					330					335	
Gly	Lys	Arg	Glu	Pro	Gln	Gly	Ile	Ser	Trp	Glu	Ser	Pro	Leu	Asp	Glu
			340					345					350		
Val	Asp	Lys	Met	Cys	His	Leu	Pro	Glu	Pro	Glu	Leu	Asn	Lys	Glu	Arg
		355					360					365			
Pro	Ser	Leu	Gln	Ile	Lys	Leu	Lys	Ile	Glu	Asp	Phe	Ile	Leu	His	Lys
		370				375					380				
Met	Leu	Gly	Lys	Gly	Ser	Phe	Gly	Lys	Val	Phe	Leu	Ala	Glu	Phe	Lys
	385					390					395				400
Lys	Thr	Asn	Gln	Phe	Phe	Ala	Ile	Lys	Ala	Leu	Lys	Lys	Asp	Val	Val
				405					410					415	
Leu	Met	Asp	Asp	Asp	Val	Glu	Cys	Thr	Met	Val	Glu	Lys	Arg	Val	Leu
			420					425					430		
Ser	Leu	Ala	Trp	Glu	His	Pro	Phe	Leu	Thr	His	Met	Phe	Cys	Thr	Phe
		435					440					445			

Gln Thr Lys Glu Asn Leu Phe Phe Val Met Glu Tyr Leu Asn Gly Gly
 450 455 460
 Asp Leu Met Tyr His Ile Gln Ser Cys His Lys Phe Asp Leu Ser Arg
 465 470 475 480
 Ala Thr Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Gln Phe Leu His
 485 490 495
 Ser Lys Gly Ile Val Tyr Arg Asp Leu Lys Leu Asp Asn Ile Leu Leu
 500 505 510
 Asp Lys Asp Gly His Ile Lys Ile Ala Asp Phe Gly Met Cys Lys Glu
 515 520 525
 Asn Met Leu Gly Asp Ala Lys Thr Asn Thr Phe Cys Gly Thr Pro Asp
 530 535 540
 Tyr Ile Ala Pro Glu Ile Leu Leu Gly Gln Lys Tyr Asn His Ser Val
 545 550 555 560
 Asp Trp Trp Ser Phe Gly Val Leu Leu Tyr Glu Met Leu Ile Gly Gln
 565 570 575
 Ser Pro Phe His Gly Gln Asp Glu Glu Glu Leu Phe His Ser Ile Arg
 580 585 590
 Met Asp Asn Pro Phe Tyr Pro Arg Trp Leu Glu Lys Glu Ala Lys Asp
 595 600 605
 Leu Leu Val Lys Val Arg Ser
 610 615

<210> 46
 <211> 292
 <212> PRT
 <213> Homo sapiens

<400> 46
 Met Pro Ile Thr Arg Met Arg Met Arg Pro Trp Leu Glu Met Gln Ile
 1 5 10 15
 Asn Ser Asn Gln Ile Pro Gly Leu Ile Trp Ile Asn Lys Glu Glu Met
 20 25 30
 Ile Phe Gln Ile Pro Trp Lys His Ala Ala Lys His Gly Trp Asp Ile
 35 40 45
 Asn Lys Asp Ala Cys Leu Phe Arg Ser Trp Ala Ile His Thr Gly Arg
 50 55 60
 Tyr Lys Ala Gly Glu Lys Glu Pro Asp Pro Lys Thr Trp Lys Ala Asn
 65 70 75 80
 Phe Arg Cys Ala Met Asn Ser Leu Pro Asp Ile Glu Glu Val Lys Asp
 85 90 95
 Gln Ser Arg Asn Lys Gly Ser Ser Ala Val Arg Val Tyr Arg Met Leu

100					105					110					
Pro	Pro	Leu	Thr	Lys	Asn	Gln	Arg	Lys	Glu	Arg	Lys	Ser	Lys	Ser	Ser
		115					120					125			
Arg	Asp	Ala	Lys	Ser	Lys	Ala	Lys	Arg	Lys	Ser	Cys	Gly	Asp	Ser	Ser
	130					135					140				
Pro	Asp	Thr	Phe	Ser	Asp	Gly	Leu	Ser	Ser	Ser	Thr	Leu	Pro	Asp	Asp
	145					150					155				160
His	Ser	Ser	Tyr	Thr	Val	Pro	Gly	Tyr	Met	Gln	Asp	Leu	Glu	Val	Glu
				165					170					175	
Gln	Ala	Leu	Thr	Pro	Ala	Leu	Ser	Pro	Cys	Ala	Val	Ser	Ser	Thr	Leu
			180					185					190		
Pro	Asp	Trp	His	Ile	Pro	Val	Glu	Val	Val	Pro	Asp	Ser	Thr	Ser	Asp
		195					200					205			
Leu	Tyr	Asn	Phe	Gln	Val	Ser	Pro	Met	Pro	Ser	Thr	Ser	Glu	Ala	Thr
	210					215					220				
Thr	Asp	Glu	Asp	Glu	Glu	Gly	Lys	Leu	Pro	Glu	Asp	Ile	Met	Lys	Leu
	225					230					235				240
Leu	Glu	Gln	Ser	Glu	Trp	Gln	Pro	Thr	Asn	Val	Asp	Gly	Lys	Gly	Tyr
				245					250					255	
Leu	Leu	Asn	Glu	Pro	Gly	Val	Gln	Pro	Thr	Ser	Val	Tyr	Gly	Asp	Phe
			260					265					270		
Ser	Cys	Lys	Glu	Glu	Pro	Glu	Ile	Asp	Ser	Pro	Gly	Gly	Lys	Lys	Ala
		275					280					285			
Pro	Gly	Ser	Leu												
		290													

<210> 47
 <211> 702
 <212> PRT
 <213> Homo sapiens

<400> 47
 Met Trp Ser Trp Lys Cys Leu Leu Phe Trp Ala Val Leu Val Thr Ala
 1 5 10 15
 Thr Leu Cys Thr Ala Arg Pro Ser Pro Thr Leu Pro Glu Gln Ala Gln
 20 25 30
 Pro Trp Gly Ala Pro Val Glu Val Glu Ser Phe Leu Val His Pro Gly
 35 40 45
 Asp Leu Leu Gln Leu Arg Cys Arg Leu Arg Asp Asp Val Gln Ser Ile
 50 55 60
 Asn Trp Leu Arg Asp Gly Val Gln Leu Ala Glu Ser Asn Arg Thr Arg
 65 70 75 80

Ile Thr Gly Glu Glu Val Glu Val Gln Asp Ser Val Pro Ala Asp Ser
 85 90 95
 Gly Leu Tyr Ala Cys Val Thr Ser Ser Pro Ser Gly Ser Asp Thr Thr
 100 105 110
 Tyr Phe Ser Val Asn Val Ser Asp Ala Leu Pro Ser Ser Glu Asp Asp
 115 120 125
 Asp Asp Asp Asp Asp Ser Ser Ser Glu Glu Lys Glu Thr Asp Asn Thr
 130 135 140
 Lys Pro Asn Arg Met Pro Val Ala Pro Tyr Trp Thr Ser Pro Glu Lys
 145 150 155 160
 Met Glu Lys Lys Leu His Ala Val Pro Ala Ala Lys Thr Val Lys Phe
 165 170 175
 Lys Cys Pro Ser Ser Gly Thr Pro Asn Pro Thr Leu Arg Trp Leu Lys
 180 185 190
 Asn Gly Lys Glu Phe Lys Pro Asp His Arg Ile Gly Gly Tyr Lys Val
 195 200 205
 Arg Tyr Ala Thr Trp Ser Ile Ile Met Asp Ser Val Val Pro Ser Asp
 210 215 220
 Lys Gly Asn Tyr Thr Cys Ile Val Glu Asn Glu Tyr Gly Ser Ile Asn
 225 230 235 240
 His Thr Tyr Gln Leu Asp Val Val Glu Arg Ser Pro His Arg Pro Ile
 245 250 255
 Leu Gln Ala Gly Leu Pro Ala Asn Lys Thr Val Ala Leu Gly Ser Asn
 260 265 270
 Val Glu Phe Met Cys Lys Val Tyr Ser Asp Pro Gln Pro His Ile Gln
 275 280 285
 Trp Leu Lys His Ile Glu Val Asn Gly Ser Lys Ile Gly Pro Asp Asn
 290 295 300
 Leu Pro Tyr Val Gln Ile Leu Lys Thr Ala Gly Val Asn Thr Thr Asp
 305 310 315 320
 Lys Glu Met Glu Val Leu His Leu Arg Asn Val Ser Phe Glu Asp Ala
 325 330 335
 Gly Glu Tyr Thr Cys Leu Ala Gly Asn Ser Ile Gly Leu Ser His His
 340 345 350
 Ser Ala Trp Leu Thr Val Leu Glu Ala Leu Glu Glu Arg Pro Ala Val
 355 360 365
 Met Thr Ser Pro Leu Tyr Leu Glu Ile Ile Ile Tyr Cys Thr Gly Ala
 370 375 380
 Phe Leu Ile Ser Cys Met Val Gly Ser Val Ile Val Tyr Lys Met Lys
 385 390 395 400
 Ser Gly Thr Lys Lys Ser Asp Phe His Ser Gln Met Ala Val His Lys

<210>	48
<211>	295
<212>	PRT

<213> Homo sapiens

<400> 48

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Met  Pro  Lys  Arg  Gly  Lys  Lys  Gly  Ala  Val  Ala  Glu  Asp  Gly  Asp  Glu
 1          5          10          15

Leu  Arg  Thr  Glu  Pro  Glu  Ala  Lys  Lys  Ser  Lys  Thr  Ala  Ala  Lys  Lys
          20          25          30

Asn  Asp  Lys  Glu  Ala  Ala  Gly  Glu  Gly  Pro  Ala  Leu  Tyr  Glu  Asp  Pro
          35          40          45

Pro  Asp  Gln  Lys  Thr  Ser  Pro  Ser  Gly  Lys  Pro  Ala  Thr  Leu  Lys  Ile
          50          55          60

Cys  Ser  Trp  Asn  Val  Asp  Gly  Leu  Arg  Ala  Trp  Ile  Lys  Lys  Lys  Gly
65          70          75          80

Leu  Asp  Trp  Val  Lys  Glu  Glu  Ala  Pro  Asp  Ile  Leu  Cys  Leu  Gln  Glu
          85          90          95

Thr  Lys  Cys  Ser  Glu  Asn  Lys  Leu  Pro  Ala  Glu  Leu  Gln  Glu  Leu  Pro
          100          105          110

Gly  Leu  Ser  His  Gln  Tyr  Trp  Ser  Ala  Pro  Ser  Asp  Lys  Glu  Gly  Tyr
          115          120          125

Ser  Gly  Val  Gly  Leu  Leu  Ser  Arg  Gln  Cys  Pro  Leu  Lys  Val  Ser  Tyr
          130          135          140

Gly  Ile  Ala  Tyr  Val  Pro  Asn  Ala  Gly  Arg  Gly  Leu  Val  Arg  Leu  Glu
145          150          155          160

Tyr  Arg  Gln  Arg  Trp  Asp  Glu  Ala  Phe  Arg  Lys  Phe  Leu  Lys  Gly  Leu
          165          170          175

Ala  Ser  Arg  Lys  Pro  Leu  Val  Leu  Cys  Gly  Asp  Leu  Asn  Val  Ala  His
          180          185          190

Glu  Glu  Ile  Asp  Leu  Arg  Asn  Pro  Lys  Gly  Asn  Lys  Lys  Asn  Ala  Gly
          195          200          205

Phe  Thr  Pro  Gln  Glu  Arg  Gln  Gly  Phe  Gly  Glu  Leu  Leu  Gln  Ala  Val
210          215          220

Pro  Leu  Ala  Asp  Ser  Phe  Arg  His  Leu  Tyr  Pro  Asn  Thr  Pro  Tyr  Ala
225          230          235          240

Tyr  Thr  Phe  Trp  Thr  Tyr  Met  Met  Asn  Ala  Arg  Ser  Lys  Asn  Val  Gly
          245          250          255

Trp  Arg  Leu  Asp  Tyr  Phe  Leu  Leu  Ser  His  Ser  Leu  Leu  Pro  Ala  Leu
          260          265          270

Cys  Asp  Ser  Lys  Ile  Arg  Ser  Lys  Ala  Leu  Gly  Ser  Asp  His  Cys  Pro
          275          280          285

Ile  Thr  Leu  Tyr  Leu  Ala  Leu
290          295

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<210> 49
 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 49

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Met Pro Lys Arg Gly Lys Lys Gly Ala Val Ala Glu Asp Gly Asp Glu
  1              5              10              15

Leu Arg Thr Gly Lys Gly Met Lys Ser Ala Leu Leu Pro Arg Asn Cys
              20              25              30

Gly Gly Gly Val Cys His Ser Leu Asp Val Arg Glu Pro Glu Ala Lys
      35              40              45

Lys Ser Lys Thr Ala Ala Lys Lys Asn Asp Lys Glu Ala Ala Gly Glu
      50              55              60

Gly Pro Ala Leu Tyr Glu Asp Pro Pro Asp Gln Lys Thr Ser Pro Ser
      65              70              75              80

Gly Lys Pro Ala Thr Leu Lys Ile Cys Ser Trp Asn Val Asp Gly Leu
              85              90              95

Arg Ala Trp Ile Lys Lys Lys Gly Leu Asp Trp Val Lys Glu Glu Ala
      100              105              110

Pro Asp Ile Leu Cys Leu Gln Glu Thr Lys Cys Ser Glu Asn Lys Leu
      115              120              125

Pro Ala Glu Leu Gln Glu Leu Pro Gly Leu Ser His Gln Tyr Trp Ser
      130              135              140

Ala Pro Ser Asp Lys Glu Gly Tyr Ser Gly Val Gly Leu Leu Ser Arg
      145              150              155              160

Gln Cys Pro Leu Lys Val Ser Tyr Gly Ile Gly Asp Glu Glu His Asp
              165              170              175

Gln Glu Gly Arg Val Ile Val Ala Glu Phe Asp Ser Phe Val Leu Val
      180              185              190

Thr Ala Tyr Val Pro Asn Ala Gly Arg Gly Leu Val Arg Leu Glu Tyr
      195              200              205

Arg Gln Arg Trp Asp Glu Ala Phe Arg Lys Phe Leu Lys Gly Leu Ala
      210              215              220

Ser Arg Lys Pro Leu Val Leu Cys Gly Asp Leu Asn Val Ala His Glu
      225              230              235              240

Glu Ile Asp Leu Arg Asn Pro Lys Gly Asn Lys Lys Asn Ala Gly Phe
              245              250              255

Thr Pro Gln Glu Arg Gln Gly Phe Gly Glu Leu Leu Gln Ala Val Pro
      260              265              270

Leu Ala Asp Ser Phe Arg His Leu Tyr Pro Asn Thr Pro Tyr Ala Tyr
      275              280              285
  
```

Thr Phe Trp Thr Tyr Met Met Asn Ala Arg Ser Lys Asn Val Gly Trp
 290 295 300
 Arg Leu Asp Tyr Phe Leu Leu Ser His Ser Leu Leu Pro Ala Leu Cys
 305 310 315 320
 Asp Ser Lys Ile Arg Ser Lys Ala Leu Gly Ser Asp His Cys Pro Ile
 325 330 335
 Thr Leu Tyr Leu Ala Leu
 340

<210> 50
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 50
 Met Phe Gln Ala Ala Glu Arg Pro Gln Glu Trp Ala Met Glu Gly Pro
 1 5 10 15
 Arg Asp Gly Leu Lys Lys Glu Arg Leu Leu Asp Asp Arg His Asp Ser
 20 25 30
 Gly Leu Asp Ser Met Lys Asp Glu Glu Tyr Glu Gln Met Val Lys Glu
 35 40 45
 Leu Gln Glu Ile Arg Leu Glu Pro Gln Glu Val Pro Arg Gly Ser Glu
 50 55 60
 Pro Trp Lys Gln Gln Leu Thr Glu Asp Gly Asp Ser Phe Leu His Leu
 65 70 75 80
 Ala Ile Ile His Glu Glu Lys Ala Leu Thr Met Glu Val Ile Arg Gln
 85 90 95
 Val Lys Gly Asp Leu Ala Phe Leu Asn Phe Gln Asn Asn Leu Gln Gln
 100 105 110
 Thr Pro Leu His Leu Ala Val Ile Thr Asn Gln Pro Glu Ile Ala Glu
 115 120 125
 Ala Leu Leu Gly Ala Gly Cys Asp Pro Glu Leu Arg Asp Phe Arg Gly
 130 135 140
 Asn Thr Pro Leu His Leu Ala Cys Glu Gln Gly Cys Leu Ala Ser Val
 145 150 155 160
 Gly Val Leu Thr Gln Ser Cys Thr Thr Pro His Leu His Ser Ile Leu
 165 170 175
 Lys Ala Thr Asn Tyr Asn Gly His Thr Cys Leu His Leu Ala Ser Ile
 180 185 190
 His Gly Tyr Leu Gly Ile Val Glu Leu Leu Val Ser Leu Gly Ala Asp
 195 200 205
 Val Asn Ala Gln Glu Pro Cys Asn Gly Arg Thr Ala Leu His Leu Ala
 210 215 220

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Val Asp Leu Gln Asn Pro Asp Leu Val Ser Leu Leu Leu Lys Cys Gly
 225 230 235 240

Ala Asp Val Asn Arg Val Thr Tyr Gln Gly Tyr Ser Pro Tyr Gln Leu
 245 250 255

Thr Trp Gly Arg Pro Ser Thr Arg Ile Gln Gln Gln Leu Gly Gln Leu
 260 265 270

Thr Leu Glu Asn Leu Gln Met Leu Pro Glu Ser Glu Asp Glu Glu Ser
 275 280 285

Tyr Asp Thr Glu Ser Glu Phe Thr Glu Phe Thr Glu Asp Glu Val Ser
 290 295 300

Leu
 305

<210> 51
 <211> 289
 <212> PRT
 <213> Homo sapiens

<400> 51
 Met Phe Gln Ala Ala Glu Arg Pro Gln Glu Trp Ala Met Glu Gly Pro
 1 5 10 15

Arg Asp Gly Leu Lys Lys Glu Arg Leu Leu Asp Asp Arg His Asp Ser
 20 25 30

Gly Leu Asp Ser Met Lys Asp Glu Glu Tyr Glu Gln Met Val Lys Glu
 35 40 45

Leu Gln Glu Ile Arg Leu Glu Pro Gln Glu Val Pro Arg Gly Ser Glu
 50 55 60

Pro Trp Lys Gln Gln Leu Thr Glu Asp Gly Asp Ser Phe Leu His Leu
 65 70 75 80

Ala Ile Ile His Glu Glu Lys Ala Leu Thr Met Glu Val Ile Arg Gln
 85 90 95

Val Lys Gly Asp Leu Ala Phe Leu Asn Phe Gln Asn Asn Leu Gln Gln
 100 105 110

Thr Pro Leu His Leu Ala Val Ile Thr Asn Gln Pro Glu Ile Ala Glu
 115 120 125

Ala Leu Leu Gly Ala Gly Cys Asp Pro Glu Leu Arg Asp Phe Arg Gly
 130 135 140

Asn Thr Pro Leu His Leu Ala Cys Glu Gln Gly Cys Leu Ala Ser Val
 145 150 155 160

Gly Val Leu Thr Gln Ser Cys Thr Thr Pro His Leu His Ser Ile Leu
 165 170 175

Lys Ala Thr Asn Tyr Asn Gly Gln Glu Pro Cys Asn Gly Arg Thr Ala

180					185					190					
Leu	His	Leu	Ala	Val	Asp	Leu	Gln	Asn	Pro	Asp	Leu	Val	Ser	Leu	Leu
		195					200					205			
Leu	Lys	Cys	Gly	Ala	Asp	Val	Asn	Arg	Val	Thr	Tyr	Gln	Gly	Tyr	Ser
	210					215					220				
Pro	Tyr	Gln	Leu	Thr	Trp	Gly	Arg	Pro	Ser	Thr	Arg	Ile	Gln	Gln	Gln
225					230					235					240
Leu	Gly	Gln	Leu	Thr	Leu	Glu	Asn	Leu	Gln	Met	Leu	Pro	Glu	Ser	Glu
				245					250					255	
Asp	Glu	Glu	Ser	Tyr	Asp	Thr	Glu	Ser	Glu	Phe	Thr	Glu	Phe	Thr	Glu
			260					265					270		
Asp	Glu	Leu	Pro	Tyr	Asp	Asp	Cys	Val	Phe	Gly	Gly	Gln	Arg	Leu	Thr
	275						280					285			
Leu															

<210> 52
 <211> 921
 <212> PRT
 <213> Homo sapiens

<400> 52
 Met Ala Gly Ile Phe Tyr Phe Ala Leu Phe Ser Cys Leu Phe Gly Ile
 1 5 10 15
 Cys Asp Ala Val Thr Gly Ser Arg Val Tyr Pro Ala Asn Glu Val Thr
 20 25 30
 Leu Leu Asp Ser Arg Ser Val Gln Gly Glu Leu Gly Trp Ile Ala Ser
 35 40 45
 Pro Leu Glu Gly Gly Trp Glu Glu Val Ser Ile Met Asp Glu Lys Asn
 50 55 60
 Thr Pro Ile Arg Thr Tyr Gln Val Cys Asn Val Met Glu Pro Ser Gln
 65 70 75 80
 Asn Asn Trp Leu Arg Thr Asp Trp Ile Thr Arg Glu Gly Ala Gln Arg
 85 90 95
 Val Tyr Ile Glu Ile Lys Phe Thr Leu Arg Asp Cys Asn Ser Leu Pro
 100 105 110
 Gly Val Met Gly Thr Cys Lys Glu Thr Phe Asn Leu Tyr Tyr Tyr Glu
 115 120 125
 Ser Asp Asn Asp Lys Glu Arg Phe Ile Arg Glu Asn Gln Phe Val Lys
 130 135 140
 Ile Asp Thr Ile Ala Ala Asp Glu Ser Phe Thr Gln Val Asp Ile Gly
 145 150 155 160

Asp Arg Ile Met Lys Leu Asn Thr Glu Ile Arg Asp Val Gly Pro Leu
 165 170 175
 Ser Lys Lys Gly Phe Tyr Leu Ala Phe Gln Asp Val Gly Ala Cys Ile
 180 185 190
 Ala Leu Val Ser Val Arg Val Phe Tyr Lys Lys Cys Pro Leu Thr Val
 195 200 205
 Arg Asn Leu Ala Gln Phe Pro Asp Thr Ile Thr Gly Ala Asp Thr Ser
 210 215 220
 Ser Leu Val Glu Val Arg Gly Ser Cys Val Asn Asn Ser Glu Glu Lys
 225 230 235 240
 Asp Val Pro Lys Met Tyr Cys Gly Ala Asp Gly Glu Trp Leu Val Pro
 245 250 255
 Ile Gly Asn Cys Leu Cys Asn Ala Gly His Glu Glu Arg Ser Gly Glu
 260 265 270
 Cys Gln Ala Cys Lys Ile Gly Tyr Tyr Lys Ala Leu Ser Thr Asp Ala
 275 280 285
 Thr Cys Ala Lys Cys Pro Pro His Ser Tyr Ser Val Trp Glu Gly Ala
 290 295 300
 Thr Ser Cys Thr Cys Asp Arg Gly Phe Phe Arg Ala Asp Asn Asp Ala
 305 310 315 320
 Ala Ser Met Pro Cys Thr Arg Pro Pro Ser Ala Pro Leu Asn Leu Ile
 325 330 335
 Ser Asn Val Asn Glu Thr Ser Val Asn Leu Glu Trp Ser Ser Pro Gln
 340 345 350
 Asn Thr Gly Gly Arg Gln Asp Ile Ser Tyr Asn Val Val Cys Lys Lys
 355 360 365
 Cys Gly Ala Gly Asp Pro Ser Lys Cys Arg Pro Cys Gly Ser Gly Val
 370 375 380
 His Tyr Thr Pro Gln Gln Asn Gly Leu Lys Thr Thr Lys Val Ser Ile
 385 390 395 400
 Thr Asp Leu Leu Ala His Thr Asn Tyr Thr Phe Glu Ile Trp Ala Val
 405 410 415
 Asn Gly Val Ser Lys Tyr Asn Pro Asn Pro Asp Gln Ser Val Ser Val
 420 425 430
 Thr Val Thr Thr Asn Gln Ala Ala Pro Ser Ser Ile Ala Leu Val Gln
 435 440 445
 Ala Lys Glu Val Thr Arg Tyr Ser Val Ala Leu Ala Trp Leu Glu Pro
 450 455 460
 Asp Arg Pro Asn Gly Val Ile Leu Glu Tyr Glu Val Lys Tyr Tyr Glu
 465 470 475 480
 Lys Asp Gln Asn Glu Arg Ser Tyr Arg Ile Val Arg Thr Ala Ala Arg

485										490					495				
Asn	Thr	Asp	Ile	Lys	Gly	Leu	Asn	Pro	Leu	Thr	Ser	Tyr	Val	Phe	His				
			500					505					510						
Val	Arg	Ala	Arg	Thr	Ala	Ala	Gly	Tyr	Gly	Asp	Phe	Ser	Glu	Pro	Leu				
		515					520					525							
Glu	Val	Thr	Thr	Asn	Thr	Val	Pro	Ser	Arg	Ile	Ile	Gly	Asp	Gly	Ala				
	530					535					540								
Asn	Ser	Thr	Val	Leu	Leu	Val	Ser	Val	Ser	Gly	Ser	Val	Val	Leu	Val				
545					550					555					560				
Val	Ile	Leu	Ile	Ala	Ala	Phe	Val	Ile	Ser	Arg	Arg	Arg	Ser	Lys	Tyr				
				565					570					575					
Ser	Lys	Ala	Lys	Gln	Glu	Ala	Asp	Glu	Glu	Lys	His	Leu	Asn	Gln	Gly				
			580					585					590						
Val	Arg	Thr	Tyr	Val	Asp	Pro	Phe	Thr	Tyr	Glu	Asp	Pro	Asn	Gln	Ala				
		595					600					605							
Val	Arg	Glu	Phe	Ala	Lys	Glu	Ile	Asp	Ala	Ser	Cys	Ile	Lys	Ile	Glu				
	610					615					620								
Lys	Val	Ile	Gly	Val	Gly	Glu	Phe	Gly	Glu	Val	Cys	Ser	Gly	Arg	Leu				
625					630					635					640				
Lys	Val	Pro	Gly	Lys	Arg	Glu	Ile	Cys	Val	Ala	Ile	Lys	Thr	Leu	Lys				
				645					650					655					
Ala	Gly	Tyr	Thr	Asp	Lys	Gln	Arg	Arg	Asp	Phe	Leu	Ser	Glu	Ala	Ser				
			660					665					670						
Ile	Met	Gly	Gln	Phe	Asp	His	Pro	Asn	Ile	Ile	His	Leu	Glu	Gly	Val				
	675						680					685							
Val	Thr	Lys	Cys	Lys	Pro	Val	Met	Ile	Ile	Thr	Glu	Tyr	Met	Glu	Asn				
	690					695					700								
Gly	Ser	Leu	Asp	Ala	Phe	Leu	Arg	Lys	Asn	Asp	Gly	Arg	Phe	Thr	Val				
705					710					715					720				
Ile	Gln	Leu	Val	Gly	Met	Leu	Arg	Gly	Ile	Gly	Ser	Gly	Met	Lys	Tyr				
				725					730					735					
Leu	Ser	Asp	Met	Ser	Tyr	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Ile				
			740					745					750						
Leu	Val	Asn	Ser	Asn	Leu	Val	Cys	Lys	Val	Ser	Asp	Phe	Gly	Met	Ser				
		755					760					765							
Arg	Val	Leu	Glu	Asp	Asp	Pro	Glu	Ala	Ala	Tyr	Thr	Thr	Arg	Gly	Gly				
		770				775						780							
Lys	Ile	Pro	Ile	Arg	Trp	Thr	Ala	Pro	Glu	Ala	Ile	Ala	Tyr	Arg	Lys				
785					790					795					800				
Phe	Thr	Ser	Ala	Ser	Asp	Val	Trp	Ser	Tyr	Gly	Ile	Val	Met	Trp	Glu				
				805					810					815					

Val Met Ser Tyr Gly Glu Arg Pro Tyr Trp Asp Met Ser Asn Gln Asp
820 825 830

Pro Asn Thr Ala Leu Leu Asp Pro Ser Ser Pro Glu Phe Ser Ala Val
835 840 845

Val Ser Val Gly Asp Trp Leu Gln Ala Ile Lys Met Asp Arg Tyr Lys
850 855 860

Asp Asn Phe Thr Ala Ala Gly Tyr Thr Thr Leu Glu Ala Val Val His
865 870 875 880

Val Asn Gln Glu Asp Leu Ala Arg Ile Gly Ile Thr Ala Ile Thr His
885 890 895

Gln Asn Lys Ile Leu Ser Ser Val Gln Ala Met Arg Thr Gln Met Gln
900 905 910

Gln Met His Gly Arg Met Val Pro Val
915 920

<210> 53
<211> 444
<212> PRT
<213> Homo sapiens

<400> 53
Met Asn Asp Phe Gly Ile Lys Asn Met Asp Gln Val Ala Pro Val Ala
1 5 10 15

Asn Ser Tyr Arg Gly Thr Leu Lys Arg Gln Pro Ala Phe Asp Thr Phe
20 25 30

Asp Gly Ser Leu Phe Ala Val Phe Pro Ser Leu Asn Glu Glu Gln Thr
35 40 45

Leu Gln Glu Val Pro Thr Gly Leu Asp Ser Ile Ser His Asp Ser Ala
50 55 60

Asn Cys Glu Leu Pro Leu Leu Thr Pro Cys Ser Lys Ala Val Met Ser
65 70 75 80

Gln Ala Leu Lys Ala Thr Phe Ser Gly Phe Phe Trp Ala Thr Asn Glu
85 90 95

Phe Ser Leu Val Asn Val Asn Leu Gln Arg Phe Gly Met Asn Gly Gln
100 105 110

Met Leu Cys Asn Leu Gly Lys Glu Arg Phe Leu Glu Leu Ala Pro Asp
115 120 125

Phe Val Gly Asp Ile Leu Trp Glu His Leu Glu Gln Met Ile Lys Glu
130 135 140

Asn Gln Glu Lys Thr Glu Asp Gln Tyr Glu Glu Asn Ser His Leu Thr
145 150 155 160

Ser Val Pro His Trp Ile Asn Ser Asn Thr Leu Gly Phe Gly Thr Glu

165								170					175				
Gln	Ala	Pro	Tyr	Gly	Met	Gln	Thr	Gln	Asn	Tyr	Pro	Lys	Gly	Gly	Leu		
			180						185				190				
Leu	Asp	Ser	Met	Cys	Pro	Ala	Ser	Thr	Pro	Ser	Val	Leu	Ser	Ser	Glu		
		195					200					205					
Gln	Glu	Phe	Gln	Met	Phe	Pro	Lys	Ser	Arg	Leu	Ser	Ser	Val	Ser	Val		
	210					215					220						
Thr	Tyr	Cys	Ser	Val	Ser	Gln	Asp	Phe	Pro	Gly	Ser	Asn	Leu	Asn	Leu		
225					230					235					240		
Leu	Thr	Asn	Asn	Ser	Gly	Thr	Pro	Lys	Asp	His	Asp	Ser	Pro	Glu	Asn		
			245						250					255			
Gly	Ala	Asp	Ser	Phe	Glu	Ser	Ser	Asp	Ser	Leu	Leu	Gln	Ser	Trp	Asn		
		260						265					270				
Ser	Gln	Ser	Ser	Leu	Leu	Asp	Val	Gln	Arg	Val	Pro	Ser	Phe	Glu	Ser		
		275					280					285					
Phe	Glu	Asp	Asp	Cys	Ser	Gln	Ser	Leu	Cys	Leu	Asn	Lys	Pro	Thr	Met		
	290					295					300						
Ser	Phe	Lys	Asp	Tyr	Ile	Gln	Glu	Arg	Ser	Asp	Pro	Val	Glu	Gln	Gly		
305					310					315					320		
Lys	Pro	Val	Ile	Pro	Ala	Ala	Val	Leu	Ala	Gly	Phe	Thr	Gly	Ser	Gly		
			325						330					335			
Pro	Ile	Gln	Leu	Trp	Gln	Phe	Leu	Leu	Glu	Leu	Leu	Ser	Asp	Lys	Ser		
			340						345				350				
Cys	Gln	Ser	Phe	Ile	Ser	Trp	Thr	Gly	Asp	Gly	Trp	Glu	Phe	Lys	Leu		
		355					360					365					
Ala	Asp	Pro	Asp	Glu	Val	Ala	Arg	Arg	Trp	Gly	Lys	Arg	Lys	Asn	Lys		
	370					375					380						
Pro	Lys	Met	Asn	Tyr	Glu	Lys	Leu	Ser	Arg	Gly	Leu	Arg	Tyr	Tyr	Tyr		
385					390					395					400		
Asp	Lys	Asn	Ile	Ile	His	Lys	Thr	Ser	Gly	Lys	Arg	Tyr	Val	Tyr	Arg		
			405						410					415			
Phe	Val	Cys	Asp	Leu	Gln	Asn	Leu	Leu	Gly	Phe	Thr	Pro	Glu	Glu	Leu		
			420						425				430				
His	Ala	Ile	Leu	Gly	Val	Gln	Pro	Asp	Thr	Glu	Asp						
		435					440										

<210> 54

<211> 260

<212> PRT

<213> Homo sapiens

<400> 54

Met Ala Gly Ser Ala Met Ser Ser Lys Phe Phe Leu Val Ala Leu Ala
 1 5 10 15
 Ile Phe Phe Ser Phe Ala Gln Val Val Ile Glu Ala Asn Ser Trp Trp
 20 25 30
 Ser Leu Gly Met Asn Asn Pro Val Gln Met Ser Glu Val Tyr Ile Ile
 35 40 45
 Gly Ala Gln Pro Leu Cys Ser Gln Leu Ala Gly Leu Ser Gln Gly Gln
 50 55 60
 Lys Lys Leu Cys His Leu Tyr Gln Asp His Met Gln Tyr Ile Gly Glu
 65 70 75 80
 Gly Ala Lys Thr Gly Ile Lys Glu Cys Gln Tyr Gln Phe Arg His Arg
 85 90 95
 Arg Trp Asn Cys Ser Thr Val Asp Asn Thr Ser Val Phe Gly Arg Val
 100 105 110
 Met Gln Ile Gly Ser Arg Glu Thr Ala Phe Thr Tyr Ala Val Ser Ala
 115 120 125
 Ala Gly Val Val Asn Ala Met Ser Arg Ala Cys Arg Glu Gly Glu Leu
 130 135 140
 Ser Thr Cys Gly Cys Ser Arg Ala Ala Arg Pro Lys Asp Leu Pro Arg
 145 150 155 160
 Asp Trp Leu Trp Gly Gly Cys Gly Asp Asn Ile Asp Tyr Gly Tyr Arg
 165 170 175
 Phe Ala Lys Glu Phe Val Asp Ala Arg Glu Arg Glu Arg Ile His Ala
 180 185 190
 Lys Gly Ser Tyr Glu Ser Ala Arg Ile Leu Met Asn Leu His Asn Asn
 195 200 205
 Glu Ala Gly Arg Arg Thr Val Tyr Asn Leu Ala Asp Val Ala Cys Lys
 210 215 220
 Cys His Gly Val Ser Gly Ser Cys Ser Leu Lys Thr Cys Trp Leu Gln
 225 230 235 240
 Leu Ala Asp Phe Arg Lys Val Gly Asp Ala Leu Lys Glu Lys Tyr Asp
 245 250 255
 Thr Leu Val Gly
 260

<210> 55
 <211> 719
 <212> PRT
 <213> Homo sapiens

<400> 55
 Met Ala Leu Arg Arg Ser Met Gly Arg Pro Gly Leu Pro Pro Leu Pro
 1 5 10 15

Leu Pro Pro Pro Pro Arg Leu Gly Leu Leu Leu Ala Glu Ser Ala Ala
 20 25 30
 Ala Gly Leu Lys Leu Met Gly Ala Pro Val Lys Leu Thr Val Ser Gln
 35 40 45
 Gly Gln Pro Val Lys Leu Asn Cys Ser Val Glu Gly Met Glu Glu Pro
 50 55 60
 Asp Ile Gln Trp Val Lys Asp Gly Ala Val Val Gln Asn Leu Asp Gln
 65 70 75 80
 Leu Tyr Ile Pro Val Ser Glu Gln His Trp Ile Gly Phe Leu Ser Leu
 85 90 95
 Lys Ser Val Glu Arg Ser Asp Ala Gly Arg Tyr Trp Cys Gln Val Glu
 100 105 110
 Asp Gly Gly Glu Thr Glu Ile Ser Gln Pro Val Trp Leu Thr Val Glu
 115 120 125
 Gly Val Pro Phe Phe Thr Val Glu Pro Lys Asp Leu Ala Val Pro Pro
 130 135 140
 Asn Ala Pro Phe Gln Leu Ser Cys Glu Ala Val Gly Pro Pro Glu Pro
 145 150 155 160
 Val Thr Ile Val Trp Trp Arg Gly Thr Thr Lys Ile Gly Gly Pro Ala
 165 170 175
 Pro Ser Pro Ser Val Leu Asn Val Thr Gly Val Thr Gln Ser Thr Met
 180 185 190
 Phe Ser Cys Glu Ala His Asn Leu Lys Gly Leu Ala Ser Ser Arg Thr
 195 200 205
 Ala Thr Val His Leu Gln Ala Leu Pro Ala Ala Pro Phe Asn Ile Thr
 210 215 220
 Val Thr Lys Leu Ser Ser Ser Asn Ala Ser Val Ala Trp Met Pro Gly
 225 230 235 240
 Ala Asp Gly Arg Ala Leu Leu Gln Ser Cys Thr Val Gln Val Thr Gln
 245 250 255
 Ala Pro Gly Gly Trp Glu Val Leu Ala Val Val Val Pro Val Pro Pro
 260 265 270
 Phe Thr Cys Leu Leu Arg Asp Leu Val Pro Ala Thr Asn Tyr Ser Leu
 275 280 285
 Arg Val Arg Cys Ala Asn Ala Leu Gly Pro Ser Pro Tyr Ala Asp Trp
 290 295 300
 Val Pro Phe Gln Thr Lys Gly Leu Ala Pro Ala Ser Ala Pro Gln Asn
 305 310 315 320
 Leu His Ala Ile Arg Thr Asp Ser Gly Leu Ile Leu Glu Trp Glu Glu
 325 330 335

Val Ile Pro Glu Ala Pro Leu Glu Gly Pro Leu Gly Pro Tyr Lys Leu
 340 345 350
 Ser Trp Val Gln Asp Asn Gly Thr Gln Asp Glu Leu Thr Val Glu Gly
 355 360 365
 Thr Arg Ala Asn Leu Thr Gly Trp Asp Pro Gln Lys Asp Leu Ile Val
 370 375 380
 Arg Val Cys Val Ser Asn Ala Val Gly Cys Gly Pro Trp Ser Gln Pro
 385 390 395 400
 Leu Val Val Ser Ser His Asp Arg Ala Gly Gln Gln Gly Pro Pro His
 405 410 415
 Ser Arg Thr Ser Trp Val Pro Val Val Leu Gly Val Leu Thr Ala Leu
 420 425 430
 Val Thr Ala Ala Ala Leu Ala Leu Ile Leu Leu Arg Lys Arg Arg Lys
 435 440 445
 Glu Thr Arg Phe Gly Gln Ala Phe Asp Ser Val Met Ala Arg Gly Glu
 450 455 460
 Pro Ala Val His Phe Arg Ala Ala Arg Ser Phe Asn Arg Glu Arg Pro
 465 470 475 480
 Glu Arg Ile Glu Ala Thr Leu Asp Ser Leu Gly Ile Ser Asp Glu Leu
 485 490 495
 Lys Glu Lys Leu Glu Asp Val Leu Ile Pro Glu Gln Gln Phe Thr Leu
 500 505 510
 Gly Arg Met Leu Gly Lys Gly Glu Phe Gly Ser Val Arg Glu Ala Gln
 515 520 525
 Leu Lys Gln Glu Asp Gly Ser Phe Val Lys Val Ala Val Lys Met Leu
 530 535 540
 Lys Ala Asp Ile Ile Ala Ser Ser Asp Ile Glu Glu Phe Leu Arg Glu
 545 550 555 560
 Ala Ala Cys Met Lys Glu Phe Asp His Pro His Val Ala Lys Leu Val
 565 570 575
 Gly Val Ser Leu Arg Ser Arg Ala Lys Gly Arg Leu Pro Ile Pro Met
 580 585 590
 Val Ile Leu Pro Phe Met Lys His Gly Asp Leu His Ala Phe Leu Leu
 595 600 605
 Ala Ser Arg Ile Gly Glu Asn Pro Phe Asn Leu Pro Leu Gln Thr Leu
 610 615 620
 Ile Arg Phe Met Val Asp Ile Ala Cys Gly Met Glu Tyr Leu Ser Ser
 625 630 635 640
 Arg Asn Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Met Leu Ala
 645 650 655
 Glu Asp Met Thr Val Cys Val Ala Asp Phe Gly Leu Ser Arg Lys Ile

660	665	670
Tyr Ser Asp Cys Arg Tyr Ile Leu Thr Pro Gly Gly Leu Ala Glu Gln		
675	680	685
Pro Gly Gln Ala Glu His Gln Pro Glu Ser Pro Leu Asn Glu Thr Gln		
690	695	700
Arg Leu Leu Leu Leu Gln Gln Gly Leu Leu Pro His Ser Ser Cys		
705	710	715

<210> 56
 <211> 848
 <212> PRT
 <213> Homo sapiens

<400> 56
 Met Cys Arg Ile Ala Gly Ala Leu Arg Thr Leu Leu Pro Leu Leu Ala
 1 5 10 15

Ala Leu Leu Gln Ala Ser Val Glu Ala Ser Gly Glu Ile Ala Leu Cys
 20 25 30

Lys Thr Gly Phe Pro Glu Asp Val Tyr Ser Ala Val Leu Ser Lys Asp
 35 40 45

Val His Glu Gly Gln Pro Leu Leu Asn Val Lys Phe Ser Asn Cys Asn
 50 55 60

Gly Lys Arg Lys Val Gln Tyr Glu Ser Ser Glu Pro Ala Asp Phe Lys
 65 70 75 80

Val Asp Glu Asp Gly Met Val Tyr Ala Val Arg Ser Phe Pro Leu Ser
 85 90 95

Ser Glu His Ala Lys Phe Leu Ile Tyr Ala Gln Asp Lys Glu Thr Gln
 100 105 110

Glu Lys Trp Gln Val Ala Val Lys Leu Ser Leu Lys Pro Thr Leu Thr
 115 120 125

Glu Glu Ser Val Lys Glu Ser Ala Glu Val Glu Glu Ile Val Phe Pro
 130 135 140

Arg Gln Phe Ser Lys His Ser Gly His Leu Gln Arg Gln Lys Arg Asp
 145 150 155 160

Trp Val Ile Pro Pro Ile Asn Leu Pro Glu Asn Ser Arg Gly Pro Phe
 165 170 175

Pro Gln Glu Leu Val Arg Ile Arg Ser Asp Arg Asp Lys Asn Leu Ser
 180 185 190

Leu Arg Tyr Ser Val Thr Gly Pro Gly Ala Asp Gln Pro Pro Thr Gly
 195 200 205

Ile Phe Ile Ile Asn Pro Ile Ser Gly Gln Leu Ser Val Thr Lys Pro
 210 215 220

Leu Asp Arg Glu Gln Ile Ala Arg Phe His Leu Arg Ala His Ala Val
 225 230 235 240
 Asp Ile Asn Gly Asn Gln Val Glu Asn Pro Ile Asp Ile Val Ile Asn
 245 250 255
 Val Ile Asp Met Asn Asp Asn Arg Pro Glu Phe Leu His Gln Val Trp
 260 265 270
 Asn Gly Thr Val Pro Glu Gly Ser Lys Pro Gly Thr Tyr Val Met Thr
 275 280 285
 Val Thr Ala Ile Asp Ala Asp Asp Pro Asn Ala Leu Asn Gly Met Leu
 290 295 300
 Arg Tyr Arg Ile Val Ser Gln Ala Pro Ser Thr Pro Ser Pro Asn Met
 305 310 315 320
 Phe Thr Ile Asn Asn Glu Thr Gly Asp Ile Ile Thr Val Ala Ala Gly
 325 330 335
 Leu Asp Arg Glu Lys Val Gln Gln Tyr Thr Leu Ile Ile Gln Ala Thr
 340 345 350
 Asp Met Glu Gly Asn Pro Thr Tyr Gly Leu Ser Asn Thr Ala Thr Ala
 355 360 365
 Val Ile Thr Val Thr Asp Val Asn Asp Asn Pro Pro Glu Phe Thr Ala
 370 375 380
 Met Thr Phe Tyr Gly Glu Val Pro Glu Asn Arg Val Asp Ile Ile Val
 385 390 395 400
 Ala Asn Leu Thr Val Thr Asp Lys Asp Gln Pro His Thr Pro Ala Trp
 405 410 415
 Asn Ala Val Tyr Arg Ile Ser Gly Gly Asp Pro Thr Gly Arg Phe Ala
 420 425 430
 Ile Gln Thr Asp Pro Asn Ser Asn Asp Gly Leu Val Thr Val Val Lys
 435 440 445
 Pro Ile Asp Phe Glu Thr Asn Arg Met Phe Val Leu Thr Val Ala Ala
 450 455 460
 Glu Asn Gln Val Pro Leu Ala Lys Gly Ile Gln His Pro Pro Gln Ser
 465 470 475 480
 Thr Ala Thr Val Ser Val Thr Val Ile Asp Val Asn Glu Asn Pro Tyr
 485 490 495
 Phe Ala Pro Asn Pro Lys Ile Ile Arg Gln Glu Glu Gly Leu His Ala
 500 505 510
 Gly Thr Met Leu Thr Thr Phe Thr Ala Gln Asp Pro Asp Arg Tyr Met
 515 520 525
 Gln Gln Asn Ile Arg Tyr Thr Lys Leu Ser Asp Pro Ala Asn Trp Leu
 530 535 540
 Lys Ile Asp Pro Val Asn Gly Gln Ile Thr Thr Ile Ala Val Leu Asp

545	550	555	560
Arg Glu Ser Pro Asn Val Lys Asn Asn Ile Tyr Asn Ala Thr Phe Leu	565	570	575
Ala Ser Asp Asn Gly Ile Pro Pro Met Ser Gly Thr Gly Thr Leu Gln	580	585	590
Ile Tyr Leu Leu Asp Ile Asn Asp Asn Ala Pro Gln Val Leu Pro Gln	595	600	605
Glu Ala Glu Thr Cys Glu Thr Pro Asp Pro Asn Ser Ile Asn Ile Thr	610	615	620
Ala Leu Asp Tyr Asp Ile Asp Pro Asn Ala Gly Pro Phe Ala Phe Asp	625	630	635
Leu Pro Leu Ser Pro Val Thr Ile Lys Arg Asn Trp Thr Ile Thr Arg	645	650	655
Leu Asn Gly Asp Phe Ala Gln Leu Asn Leu Lys Ile Lys Phe Leu Glu	660	665	670
Ala Gly Ile Tyr Glu Val Pro Ile Ile Ile Thr Asp Ser Gly Asn Pro	675	680	685
Pro Lys Ser Asn Ile Ser Ile Leu Arg Val Lys Val Cys Gln Cys Asp	690	695	700
Ser Asn Gly Asp Cys Thr Asp Val Asp Arg Ile Val Gly Ala Gly Leu	705	710	715
Gly Thr Gly Ala Ile Ile Ala Ile Leu Leu Cys Ile Ile Ile Leu Leu	725	730	735
Ile Leu Val Leu Met Phe Val Val Trp Met Lys Arg Arg Asp Lys Glu	740	745	750
Arg Gln Ala Lys Gln Leu Leu Ile Asp Pro Glu Asp Asp Val Arg Asp	755	760	765
Asn Ile Leu Lys Tyr Asp Glu Glu Gly Gly Gly Glu Glu Asp Gln Asp	770	775	780
Tyr Asp Leu Ser Gln Leu Gln Gln Pro Asp Thr Val Glu Pro Asp Ala	785	790	795
Ile Lys Pro Val Gly Ile Arg Arg Met Asp Glu Arg Pro Ile His Ala	805	810	815
Glu Pro Gln Tyr Pro Val Arg Ser Ala Ala Pro His Pro Gly Asp Ile	820	825	830
Gly Asp Phe Ile Asn Glu Lys Thr Trp Pro Ile Gln Ser Leu His Leu	835	840	845

<210> 57
 <211> 103
 <212> PRT
 <213> Homo sapiens

<400> 57
 Met Glu Arg Val Lys Met Ile Asn Val Gln Arg Leu Leu Glu Ala Ala
 1 5 10 15
 Glu Phe Leu Glu Arg Arg Glu Arg Glu Cys Glu His Gly Tyr Ala Ser
 20 25 30
 Ser Phe Pro Ser Met Pro Ser Pro Arg Leu Gln His Ser Lys Pro Pro
 35 40 45
 Arg Arg Leu Ser Arg Ala Gln Lys His Ser Ser Gly Ser Ser Asn Thr
 50 55 60
 Ser Thr Ala Asn Arg Ser Thr His Asn Glu Leu Glu Lys Asn Arg Leu
 65 70 75 80
 Lys Asn Trp Leu Val Gly Arg Arg Asp Thr Arg Gly Met Lys Met Leu
 85 90 95
 Leu Lys Ala Ile Ala Val Ile
 100

<210> 58
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 58
 Met Glu Lys His Ile Asn Thr Phe Leu Gln Asn Val Gln Ile Leu Leu
 1 5 10 15
 Glu Ala Ala Ser Tyr Leu Glu Gln Ile Glu Lys Glu Asn Lys Lys Cys
 20 25 30
 Glu His Gly Tyr Ala Ser Ser Phe Pro Ser Met Pro Ser Pro Arg Leu
 35 40 45
 Gln His Ser Lys Pro Pro Arg Arg Leu Ser Arg Ala Gln Lys His Ser
 50 55 60
 Ser Gly Ser Ser Asn Thr Ser Thr Ala Asn Arg Ser Thr His Asn Glu
 65 70 75 80
 Leu Glu Lys Asn Arg Arg Ala His Leu Arg Leu Cys Leu Glu Arg Leu
 85 90 95
 Lys Val Leu Ile Pro Leu Gly Pro Asp Cys Thr Arg His Thr Thr Leu
 100 105 110
 Gly Leu Leu Asn Lys Ala Lys Ala His Ile Lys Lys Leu Glu Glu Ala
 115 120 125
 Glu Arg Lys Ser Gln His Gln Leu Glu Asn Leu Glu Arg Glu Gln Arg
 130 135 140

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<210> 59
<211> 329
<212> PRT
<213> Homo sapiens

<400> 59
Met Glu Ser Pro Ala Ser Ser Gln Pro Ala Ser Met Pro Gln Ser Lys
 1          5          10          15
Gly Lys Ser Lys Arg Lys Lys Asp Leu Arg Ile Ser Cys Met Ser Lys
          20          25          30
Pro Pro Ala Pro Asn Pro Thr Pro Pro Arg Asn Leu Asp Ser Arg Thr
          35          40          45
Phe Ile Thr Ile Gly Asp Arg Asn Phe Glu Val Glu Ala Asp Asp Leu
          50          55          60
Val Thr Ile Ser Glu Leu Gly Arg Gly Ala Tyr Gly Val Val Glu Lys
 65          70          75          80
Val Arg His Ala Gln Ser Gly Thr Ile Met Ala Val Lys Arg Ile Arg
          85          90          95
Ala Thr Val Asn Ser Gln Glu Gln Lys Arg Leu Leu Met Asp Leu Asp
          100          105          110
Ile Asn Met Arg Thr Val Asp Cys Phe Tyr Thr Val Thr Phe Tyr Gly
          115          120          125
Ala Leu Phe Arg Glu Gly Asp Val Trp Ile Cys Met Glu Leu Met Asp
          130          135          140
Thr Ser Leu Asp Lys Phe Tyr Arg Lys Val Leu Asp Lys Asn Met Thr
145          150          155          160
Ile Pro Glu Asp Ile Leu Gly Glu Ile Ala Val Ser Ile Val Arg Ala
          165          170          175
Leu Glu His Leu His Ser Lys Leu Ser Val Ile His Arg Asp Val Lys

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180										185					190						
Pro	Ser	Asn	Val	Leu	Ile	Asn	Lys	Glu	Gly	His	Val	Lys	Met	Cys	Asp						
		195					200					205									
Phe	Gly	Ile	Ser	Gly	Tyr	Leu	Val	Asp	Ser	Val	Ala	Lys	Thr	Met	Asp						
	210					215					220										
Ala	Gly	Cys	Lys	Pro	Tyr	Met	Ala	Pro	Glu	Arg	Ile	Asn	Pro	Glu	Leu						
225					230					235					240						
Asn	Gln	Lys	Gly	Tyr	Asn	Val	Lys	Ser	Asp	Val	Trp	Ser	Leu	Gly	Ile						
			245						250					255							
Thr	Met	Ile	Glu	Met	Ala	Ile	Leu	Arg	Phe	Pro	Tyr	Glu	Ser	Trp	Gly						
			260					265					270								
Thr	Pro	Phe	Gln	Gln	Leu	Lys	Gln	Val	Val	Glu	Glu	Pro	Ser	Pro	Gln						
		275					280					285									
Leu	Pro	Ala	Asp	Arg	Phe	Ser	Pro	Glu	Phe	Val	Asp	Phe	Thr	Ala	Gln						
	290					295					300										
Cys	Leu	Arg	Lys	Asn	Pro	Ala	Glu	Arg	Met	Ser	Tyr	Leu	Glu	Leu	Ile						
305					310					315					320						
Gly	Ala	Asp	Arg	Phe	Ser	Pro	Thr	Pro													
				325																	

<210> 60
 <211> 292
 <212> PRT
 <213> Homo sapiens

 <400> 60
 Met Pro Glu Ile Arg Leu Arg His Val Val Ser Cys Ser Ser Gln Asp
 1 5 10 15
 Ser Thr His Cys Ala Glu Asn Leu Leu Lys Ala Asp Thr Tyr Arg Lys
 20 25 30
 Trp Arg Ala Ala Lys Ala Gly Glu Lys Thr Ile Ser Val Val Leu Gln
 35 40 45
 Leu Glu Lys Glu Glu Gln Ile His Ser Val Asp Ile Gly Asn Asp Gly
 50 55 60
 Ser Ala Phe Val Glu Val Leu Val Gly Ser Ser Ala Gly Gly Ala Gly
 65 70 75 80
 Glu Gln Asp Tyr Glu Val Leu Leu Val Thr Ser Ser Phe Met Ser Pro
 85 90 95
 Ser Glu Ser Arg Ser Gly Ser Asn Pro Asn Arg Val Arg Met Phe Gly
 100 105 110
 Pro Asp Lys Leu Val Arg Ala Ala Ala Glu Lys Arg Trp Asp Arg Val
 115 120 125

Lys Ile Val Cys Ser Gln Pro Tyr Ser Lys Asp Ser Pro Phe Gly Leu
 130 135 140
 Ser Phe Val Arg Phe His Ser Pro Pro Asp Lys Asp Glu Ala Glu Ala
 145 150 155 160
 Pro Ser Gln Lys Val Thr Val Thr Lys Leu Gly Gln Phe Arg Val Lys
 165 170 175
 Glu Glu Asp Glu Ser Ala Asn Ser Leu Arg Pro Gly Ala Leu Phe Phe
 180 185 190
 Ser Arg Ile Asn Lys Thr Ser Pro Val Thr Ala Ser Asp Pro Ala Gly
 195 200 205
 Pro Ser Tyr Ala Ala Ala Thr Leu Gln Ala Ser Ser Ala Ala Ser Ser
 210 215 220
 Ala Ser Pro Val Ser Arg Ala Ile Gly Ser Thr Ser Lys Pro Gln Glu
 225 230 235 240
 Ser Pro Trp His Ser Phe Val Pro Asp Gly Ser Thr Val Ala Met Arg
 245 250 255
 Ser Arg Ser Tyr Phe Leu Thr Ser Ser Met Gly Trp Cys Arg Lys Pro
 260 265 270
 Glu Val Cys Ala Ile His Thr His Thr His Thr His Thr His Thr His
 275 280 285
 Thr Arg Cys Ile
 290

<210> 61
 <211> 266
 <212> PRT
 <213> Homo sapiens

<400> 61
 Met Pro Glu Ile Arg Leu Arg His Val Val Ser Cys Ser Ser Gln Asp
 1 5 10 15
 Ser Thr His Cys Ala Glu Asn Leu Leu Lys Ala Asp Thr Tyr Arg Lys
 20 25 30
 Trp Arg Ala Ala Lys Ala Gly Glu Lys Thr Ile Ser Val Val Leu Gln
 35 40 45
 Leu Glu Lys Glu Glu Gln Ile His Ser Val Asp Ile Gly Asn Asp Gly
 50 55 60
 Ser Ala Phe Val Glu Val Leu Val Gly Ser Ser Ala Gly Gly Ala Gly
 65 70 75 80
 Glu Gln Asp Tyr Glu Val Leu Leu Val Thr Ser Ser Phe Met Ser Pro
 85 90 95
 Ser Glu Ser Arg Ser Gly Ser Asn Pro Asn Arg Val Arg Met Phe Gly
 100 105 110

Pro Asp Lys Leu Val Arg Ala Ala Ala Glu Lys Arg Trp Asp Arg Val
 115 120 125

Lys Ile Val Cys Ser Gln Pro Tyr Ser Lys Asp Ser Pro Phe Gly Leu
 130 135 140

Ser Phe Val Arg Phe His Ser Pro Pro Asp Lys Asp Glu Ala Glu Ala
 145 150 155 160

Pro Ser Gln Lys Val Thr Val Thr Lys Leu Gly Gln Phe Arg Val Lys
 165 170 175

Glu Glu Asp Glu Ser Ala Asn Ser Leu Arg Pro Gly Ala Leu Phe Phe
 180 185 190

Ser Arg Ile Asn Lys Thr Ser Pro Val Thr Ala Ser Asp Pro Ala Gly
 195 200 205

Pro Ser Tyr Ala Ala Ala Thr Leu Gln Ala Ser Ser Ala Ala Ser Ser
 210 215 220

Ala Ser Pro Val Ser Arg Ala Ile Gly Ser Thr Ser Lys Pro Gln Glu
 225 230 235 240

Ser Ser Asp Phe Gly Gly Val Glu Glu Glu Arg Ser Trp Arg Pro Gln
 245 250 255

Ser Ile Pro Ile Pro Ser Ala Pro Gly Ser
 260 265

<210> 62
 <211> 247
 <212> PRT
 <213> Homo sapiens

<400> 62
 Met Pro Glu Ile Arg Leu Arg His Val Val Ser Cys Ser Ser Gln Asp
 1 5 10 15

Ser Thr His Cys Ala Glu Asn Leu Leu Lys Ala Asp Thr Tyr Arg Lys
 20 25 30

Trp Arg Ala Ala Lys Ala Gly Glu Lys Thr Ile Ser Val Val Leu Gln
 35 40 45

Leu Glu Lys Glu Glu Gln Ile His Ser Val Asp Ile Gly Asn Asp Gly
 50 55 60

Ser Ala Phe Val Glu Val Leu Val Gly Ser Ser Ala Gly Gly Ala Gly
 65 70 75 80

Glu Gln Asp Tyr Glu Val Leu Leu Val Thr Ser Ser Phe Met Ser Pro
 85 90 95

Ser Glu Ser Arg Ser Gly Ser Asn Pro Asn Arg Val Arg Met Phe Gly
 100 105 110

Pro Asp Lys Leu Val Arg Ala Ala Ala Glu Lys Arg Trp Asp Arg Val

115					120					125					
Lys	Ile	Val	Cys	Ser	Gln	Pro	Tyr	Ser	Lys	Asp	Ser	Pro	Phe	Gly	Leu
130						135					140				
Ser	Phe	Val	Arg	Phe	His	Ser	Pro	Pro	Asp	Lys	Asp	Glu	Ala	Glu	Ala
145					150					155					160
Pro	Ser	Gln	Lys	Val	Thr	Val	Thr	Lys	Leu	Gly	Gln	Phe	Arg	Val	Lys
				165					170					175	
Glu	Glu	Asp	Glu	Ser	Ala	Asn	Ser	Leu	Arg	Leu	Glu	Asp	Tyr	Met	Ser
			180					185					190		
Asp	Arg	Val	Gln	Phe	Val	Ile	Thr	Ala	Gln	Glu	Trp	Asp	Pro	Ser	Phe
		195					200					205			
Glu	Glu	Ala	Leu	Met	Asp	Asn	Pro	Ser	Leu	Ala	Phe	Val	Arg	Pro	Arg
	210					215					220				
Trp	Ile	Tyr	Ser	Cys	Asn	Glu	Lys	Gln	Lys	Leu	Leu	Pro	His	Gln	Leu
225					230					235					240
Tyr	Gly	Val	Val	Pro	Gln	Ala									
				245											

<210> 63
 <211> 624
 <212> PRT
 <213> Homo sapiens

<400> 63
 Met Pro Glu Ile Arg Leu Arg His Val Val Ser Cys Ser Ser Gln Asp
 1 5 10 15
 Ser Thr His Cys Ala Glu Asn Leu Leu Lys Ala Asp Thr Tyr Arg Lys
 20 25 30
 Trp Arg Ala Ala Lys Ala Gly Glu Lys Thr Ile Ser Val Val Leu Gln
 35 40 45
 Leu Glu Lys Glu Glu Gln Ile His Ser Val Asp Ile Gly Asn Asp Gly
 50 55 60
 Ser Ala Phe Val Glu Val Leu Val Gly Ser Ser Ala Gly Gly Ala Gly
 65 70 75 80
 Glu Gln Asp Tyr Glu Val Leu Leu Val Thr Ser Ser Phe Met Ser Pro
 85 90 95
 Ser Glu Ser Arg Ser Gly Ser Asn Pro Asn Arg Val Arg Met Phe Gly
 100 105 110
 Pro Asp Lys Leu Val Arg Ala Ala Ala Glu Lys Arg Trp Asp Arg Val
 115 120 125
 Lys Ile Val Cys Ser Gln Pro Tyr Ser Lys Asp Ser Pro Phe Gly Leu
 130 135 140

Ser Phe Val Arg Phe His Ser Pro Pro Asp Lys Asp Glu Ala Glu Ala
 145 150 155 160
 Pro Ser Gln Lys Val Thr Val Thr Lys Leu Gly Gln Phe Arg Val Lys
 165 170 175
 Glu Glu Asp Glu Ser Ala Asn Ser Leu Arg Pro Gly Ala Leu Phe Phe
 180 185 190
 Ser Arg Ile Asn Lys Thr Ser Pro Val Thr Ala Ser Asp Pro Ala Gly
 195 200 205
 Pro Ser Tyr Ala Ala Ala Thr Leu Gln Ala Ser Ser Ala Ala Ser Ser
 210 215 220
 Ala Ser Pro Val Ser Arg Ala Ile Gly Ser Thr Ser Lys Pro Gln Glu
 225 230 235 240
 Ser Pro Lys Gly Lys Arg Lys Leu Asp Leu Asn Gln Glu Glu Lys Lys
 245 250 255
 Thr Pro Ser Lys Pro Pro Ala Gln Leu Ser Pro Ser Val Pro Lys Arg
 260 265 270
 Pro Lys Leu Pro Ala Pro Thr Arg Thr Pro Ala Thr Ala Pro Val Pro
 275 280 285
 Ala Arg Ala Gln Gly Ala Val Thr Gly Lys Pro Arg Gly Glu Gly Thr
 290 295 300
 Glu Pro Arg Arg Pro Arg Ala Gly Pro Glu Glu Leu Gly Lys Ile Leu
 305 310 315 320
 Gln Gly Val Val Val Val Leu Ser Gly Phe Gln Asn Pro Phe Arg Ser
 325 330 335
 Glu Leu Arg Asp Lys Ala Leu Glu Leu Gly Ala Lys Tyr Arg Pro Asp
 340 345 350
 Trp Thr Arg Asp Ser Thr His Leu Ile Cys Ala Phe Ala Asn Thr Pro
 355 360 365
 Lys Tyr Ser Gln Val Leu Gly Leu Gly Gly Arg Ile Val Arg Lys Glu
 370 375 380
 Trp Val Leu Asp Cys His Arg Met Arg Arg Arg Leu Pro Ser Arg Arg
 385 390 395 400
 Tyr Leu Met Ala Gly Pro Gly Ser Ser Ser Glu Glu Asp Glu Ala Ser
 405 410 415
 His Ser Gly Gly Ser Gly Asp Glu Ala Pro Lys Leu Pro Gln Lys Gln
 420 425 430
 Pro Gln Thr Lys Thr Lys Pro Thr Gln Ala Ala Gly Pro Ser Ser Pro
 435 440 445
 Gln Lys Pro Pro Thr Pro Glu Glu Thr Lys Ala Ala Ser Pro Val Leu
 450 455 460
 Gln Glu Asp Ile Asp Ile Glu Gly Val Gln Ser Glu Gly Gln Asp Asn

465		470		475		480
Gly Ala Glu Asp Ser	Gly Asp Thr Glu Asp Glu Leu Arg Arg Val Ala					
	485		490			495
Glu Gln Lys Glu His Arg Leu Pro Pro Gly Gln Glu Glu Asn Gly Glu						
	500		505			510
Asp Pro Tyr Ala Gly Ser Thr Asp Glu Asn Thr Asp Ser Glu Glu His						
	515		520			525
Gln Glu Pro Pro Asp Leu Pro Val Pro Glu Leu Pro Arg Phe Leu Pro						
	530		535			540
Gly Gln Ala Leu Leu Ser Leu Arg Gly Val Pro Trp Gly Arg Ala Ala						
	545		550			555
Glu Thr His Pro Ile Arg His Ser Leu Gln Trp Gly Ala Pro Trp His						
		565		570		575
Ser Phe Val Pro Asp Gly Ser Thr Val Ala Met Arg Ser Arg Ser Tyr						
	580		585			590
Phe Leu Thr Ser Ser Met Gly Trp Cys Arg Lys Pro Glu Val Cys Ala						
	595		600			605
Ile His Thr His Thr His Thr His Thr His Thr His Thr Arg Cys Ile						
	610		615			620

<210> 64
 <211> 567
 <212> PRT
 <213> Homo sapiens

<400> 64
 Met Ala Gly Ala Ile Ala Ser Arg Met Ser Phe Ser Ser Leu Lys Arg
 1 5 10 15
 Lys Gln Pro Lys Thr Phe Thr Val Arg Ile Val Thr Met Asp Ala Glu
 20 25 30
 Met Glu Phe Asn Cys Glu Met Lys Trp Lys Gly Lys Asp Leu Phe Asp
 35 40 45
 Leu Val Cys Arg Thr Leu Gly Leu Arg Glu Thr Trp Phe Phe Gly Leu
 50 55 60
 Gln Tyr Thr Ile Lys Asp Thr Val Ala Trp Leu Lys Met Asp Lys Lys
 65 70 75 80
 Val Leu Asp His Asp Val Ser Lys Glu Glu Pro Val Thr Phe His Phe
 85 90 95
 Leu Ala Lys Phe Tyr Pro Glu Asn Ala Glu Glu Glu Leu Val Gln Glu
 100 105 110

Ile Thr Gln His Leu Phe Phe Leu Gln Val Lys Lys Gln Ile Leu Asp
 115 120 125
 Glu Lys Ile Tyr Cys Pro Pro Glu Ala Ser Val Leu Leu Ala Ser Tyr
 130 135 140
 Ala Val Gln Ala Lys Tyr Gly Asp Tyr Asp Pro Ser Val His Lys Arg
 145 150 155 160
 Gly Phe Leu Ala Gln Glu Glu Leu Leu Pro Lys Arg Val Ile Asn Leu
 165 170 175
 Tyr Gln Met Thr Pro Glu Met Trp Glu Glu Arg Ile Thr Ala Trp Tyr
 180 185 190
 Ala Glu His Arg Gly Arg Ala Arg Asp Glu Ala Glu Met Glu Tyr Leu
 195 200 205
 Lys Ile Ala Gln Asp Leu Glu Met Tyr Gly Val Asn Tyr Phe Ala Ile
 210 215 220
 Arg Asn Lys Lys Gly Thr Glu Leu Leu Leu Gly Val Asp Ala Leu Gly
 225 230 235 240
 Leu His Ile Tyr Asp Pro Glu Asn Arg Leu Thr Pro Lys Ile Ser Phe
 245 250 255
 Pro Trp Lys Asn Glu Ile Arg Asn Ile Ser Tyr Ser Asp Lys Glu Phe
 260 265 270
 Thr Ile Lys Pro Leu Asp Lys Lys Ile Asp Val Phe Lys Phe Asn Ser
 275 280 285
 Ser Lys Leu Arg Val Asn Lys Leu Ile Leu Gln Leu Cys Ile Gly Asn
 290 295 300
 His Asp Leu Phe Met Arg Arg Arg Lys Ala Asp Ser Leu Glu Val Gln
 305 310 315 320
 Gln Met Lys Ala Gln Ala Arg Glu Glu Lys Ala Arg Lys Gln Met Lys
 325 330 335
 Glu Glu Ala Thr Met Ala Asn Glu Ala Leu Met Arg Ser Glu Glu Thr
 340 345 350
 Ala Asp Leu Leu Ala Glu Lys Ala Gln Ile Thr Glu Glu Glu Ala Lys
 355 360 365
 Leu Leu Ala Gln Lys Ala Ala Glu Ala Glu Gln Glu Met Gln Arg Ile
 370 375 380
 Lys Ala Thr Ala Ile Arg Thr Glu Glu Glu Lys Arg Leu Met Glu Gln
 385 390 395 400
 Lys Val Leu Glu Ala Glu Val Leu Ala Leu Lys Met Ala Glu Glu Ser
 405 410 415
 Glu Arg Arg Ala Lys Glu Ala Asp Gln Leu Lys Gln Asp Leu Gln Glu
 420 425 430
 Ala Arg Glu Ala Glu Arg Arg Ala Lys Gln Lys Leu Leu Glu Ile Ala

435 440 445

Thr Lys Pro Thr Tyr Pro Pro Met Asn Pro Ile Pro Ala Pro Leu Pro
450 455 460

Pro Asp Ile Pro Ser Phe Asn Leu Ile Gly Asp Ser Leu Ser Phe Asp
465 470 475 480

Phe Lys Asp Thr Asp Met Lys Arg Leu Ser Met Glu Ile Glu Lys Glu
 485 490 495

Lys Val Glu Tyr Met Glu Lys Ser Lys His Leu Gln Glu Gln Leu Asn
 500 505 510

Glu Leu Lys Thr Glu Ile Glu Ala Leu Lys Leu Lys Glu Arg Glu Thr
 515 520 525

Ala Leu Asp Ile Leu His Asn Glu Asn Ser Asp Arg Gly Gly Ser Ser
530 535 540

Lys His Asn Thr Ile Lys Lys Leu Thr Leu Gln Ser Ala Lys Ser Arg
545 550 555 560

Val Ala Phe Phe Glu Glu Leu
 565

<210> 65
<211> 134
<212> PRT
<213> Homo sapiens

<400> 65

Met Arg Glu Arg Phe Asp Arg Phe Leu His Glu Lys Asn Cys Met Thr
1 5 10 15

Asp Leu Leu Ala Lys Leu Glu Ala Lys Thr Gly Val Asn Arg Ser Phe
 20 25 30

Ile Ala Leu Gly Val Ile Gly Leu Val Ala Leu Tyr Leu Val Phe Gly
 35 40 45

Tyr Gly Ala Ser Leu Leu Cys Asn Leu Ile Gly Phe Gly Tyr Pro Ala
50 55 60

Tyr Ile Ser Ile Lys Ala Ile Glu Ser Pro Asn Lys Glu Asp Asp Thr
65 70 75 80

Gln Trp Leu Thr Tyr Trp Val Val Tyr Gly Val Phe Ser Ile Ala Glu
 85 90 95

Phe Phe Ser Asp Ile Phe Leu Ser Trp Phe Pro Phe Tyr Tyr Met Leu
100 105 110

Lys Gln Ile Tyr Leu Glu Pro Pro Cys Ala Arg Phe Cys Ser Thr Ser
115 120 125

Gly Arg Tyr Phe Gly Glu
130

<210> 66
 <211> 1278
 <212> PRT
 <213> Homo sapiens

<400> 66

Met	Asp	Leu	Glu	Gly	Asp	Arg	Asn	Gly	Gly	Ala	Lys	Lys	Lys	Asn	Phe
1				5					10					15	
Phe	Lys	Leu	Asn	Asn	Lys	Ser	Glu	Lys	Asp	Lys	Lys	Glu	Lys	Lys	Pro
			20					25					30		
Thr	Val	Ser	Val	Phe	Ser	Met	Phe	Arg	Tyr	Ser	Asn	Trp	Leu	Asp	Lys
		35					40					45			
Leu	Tyr	Met	Val	Val	Gly	Thr	Leu	Ala	Ala	Ile	Ile	His	Gly	Ala	Gly
	50					55					60				
Leu	Pro	Leu	Met	Met	Leu	Val	Phe	Gly	Glu	Met	Thr	Asp	Ile	Phe	Ala
	65				70					75					80
Asn	Ala	Gly	Asn	Leu	Glu	Asp	Leu	Met	Ser	Asn	Ile	Thr	Asn	Arg	Ser
			85					90						95	
Asp	Ile	Asn	Asp	Thr	Gly	Phe	Phe	Met	Asn	Leu	Glu	Glu	Asp	Met	Thr
		100						105					110		
Arg	Tyr	Ala	Tyr	Tyr	Tyr	Ser	Gly	Ile	Gly	Ala	Gly	Val	Leu	Val	Ala
		115					120					125			
Ala	Tyr	Ile	Gln	Val	Ser	Phe	Trp	Cys	Leu	Ala	Ala	Gly	Arg	Gln	Ile
	130					135					140				
His	Lys	Ile	Arg	Lys	Gln	Phe	Phe	His	Ala	Ile	Met	Arg	Gln	Glu	Ile
	145				150					155					160
Gly	Trp	Phe	Asp	Val	His	Asp	Val	Gly	Glu	Leu	Asn	Thr	Arg	Leu	Thr
			165					170						175	
Asp	Asp	Val	Ser	Lys	Ile	Asn	Glu	Val	Ile	Gly	Asp	Lys	Ile	Gly	Met
		180						185					190		
Phe	Phe	Gln	Ser	Met	Ala	Thr	Phe	Phe	Thr	Gly	Phe	Ile	Val	Gly	Phe
		195					200					205			
Thr	Arg	Gly	Trp	Lys	Leu	Thr	Leu	Val	Ile	Leu	Ala	Ile	Ser	Pro	Val
	210					215					220				
Leu	Gly	Leu	Ser	Ala	Ala	Val	Trp	Ala	Lys	Ile	Leu	Ser	Ser	Phe	Thr
	225				230					235					240
Asp	Lys	Glu	Leu	Leu	Ala	Tyr	Ala	Lys	Ala	Gly	Ala	Val	Ala	Glu	Glu
			245					250						255	
Val	Leu	Ala	Ala	Ile	Arg	Thr	Val	Ile	Ala	Phe	Gly	Gly	Gln	Lys	Lys
		260						265					270		
Glu	Leu	Glu	Arg	Tyr	Asn	Lys	Asn	Leu	Glu	Glu	Ala	Lys	Arg	Ile	Gly
		275					280					285			

Ile Lys Lys Ala Ile Thr Ala Asn Ile Ser Ile Gly Ala Ala Phe Leu
 290 295 300
 Leu Ile Tyr Ala Ser Tyr Ala Leu Ala Phe Trp Tyr Gly Thr Thr Leu
 305 310 315 320
 Val Leu Ser Gly Glu Tyr Ser Ile Gly Gln Val Leu Thr Val Phe Phe
 325 330 335
 Ser Val Leu Ile Gly Ala Phe Ser Val Gly Gln Ala Ser Pro Ser Ile
 340 345 350
 Glu Ala Phe Ala Asn Ala Arg Gly Ala Ala Tyr Glu Ile Phe Lys Ile
 355 360 365
 Ile Asp Asn Lys Pro Ser Ile Asp Ser Tyr Ser Lys Ser Gly His Lys
 370 375 380
 Pro Asp Asn Ile Lys Gly Asn Leu Glu Phe Arg Asn Val His Phe Ser
 385 390 395 400
 Tyr Pro Ser Arg Lys Glu Val Lys Ile Leu Lys Gly Leu Asn Leu Lys
 405 410 415
 Val Gln Ser Gly Gln Thr Val Ala Leu Val Gly Asn Ser Gly Cys Gly
 420 425 430
 Lys Ser Thr Thr Val Gln Leu Met Gln Arg Leu Tyr Asp Pro Thr Glu
 435 440 445
 Gly Met Val Ser Val Asp Gly Gln Asp Ile Arg Thr Ile Asn Val Arg
 450 455 460
 Phe Leu Arg Glu Ile Ile Gly Val Val Ser Gln Glu Pro Val Leu Phe
 465 470 475 480
 Ala Thr Thr Ile Ala Glu Asn Ile Arg Tyr Gly Arg Glu Asn Val Thr
 485 490 495
 Met Asp Glu Ile Glu Lys Ala Val Lys Glu Ala Asn Ala Tyr Asp Phe
 500 505 510
 Ile Met Lys Leu Pro His Lys Phe Asp Thr Leu Val Gly Glu Arg Gly
 515 520 525
 Ala Gln Leu Ser Gly Gly Gln Lys Gln Arg Ile Ala Ile Ala Arg Ala
 530 535 540
 Leu Val Arg Asn Pro Lys Ile Leu Leu Leu Asp Glu Ala Thr Ser Ala
 545 550 555 560
 Leu Asp Thr Glu Ser Glu Ala Val Val Gln Val Ala Leu Asp Lys Ala
 565 570 575
 Arg Lys Gly Arg Thr Thr Ile Val Ile Ala His Arg Leu Ser Thr Val
 580 585 590
 Arg Asn Ala Asp Val Ile Ala Gly Phe Asp Asp Gly Val Ile Val Glu
 595 600 605

Lys Gly Asn His Asp Glu Leu Met Lys Glu Lys Gly Ile Tyr Phe Lys
 610 615 620
 Leu Val Thr Met Gln Thr Ala Gly Asn Glu Val Glu Leu Glu Asn Ala
 625 630 635 640
 Ala Asp Glu Ser Lys Ser Glu Ile Asp Ala Leu Glu Met Ser Ser Asn
 645 650 655
 Asp Ser Arg Ser Ser Leu Ile Arg Lys Arg Ser Thr Arg Arg Ser Val
 660 665 670
 Arg Gly Ser Gln Ala Gln Asp Arg Lys Leu Ser Thr Lys Glu Ala Leu
 675 680 685
 Asp Glu Ser Ile Pro Pro Val Ser Phe Trp Arg Ile Met Lys Leu Asn
 690 695 700
 Leu Thr Glu Trp Pro Tyr Phe Val Val Gly Val Phe Cys Ala Ile Ile
 705 710 715 720
 Asn Gly Gly Leu Gln Pro Ala Phe Ala Ile Ile Phe Ser Lys Ile Ile
 725 730 735
 Gly Val Phe Thr Arg Ile Asp Asp Pro Glu Thr Lys Arg Gln Asn Ser
 740 745 750
 Asn Leu Phe Ser Leu Leu Phe Leu Ala Leu Gly Ile Ile Ser Phe Ile
 755 760 765
 Thr Phe Phe Leu Gln Gly Phe Thr Phe Gly Lys Ala Gly Glu Ile Leu
 770 775 780
 Thr Lys Arg Leu Arg Tyr Met Val Phe Arg Ser Met Leu Arg Gln Asp
 785 790 795 800
 Val Ser Trp Phe Asp Asp Pro Lys Asn Thr Thr Gly Ala Leu Thr Thr
 805 810 815
 Arg Leu Ala Asn Asp Ala Ala Gln Val Lys Gly Ala Ile Gly Ser Arg
 820 825 830
 Leu Ala Val Ile Thr Gln Asn Ile Ala Asn Leu Gly Thr Gly Ile Ile
 835 840 845
 Ile Ser Phe Ile Tyr Gly Trp Gln Leu Thr Leu Leu Leu Ala Ile
 850 855 860
 Val Pro Ile Ile Ala Ile Ala Gly Val Val Glu Met Lys Met Leu Ser
 865 870 875 880
 Gly Gln Ala Leu Lys Asp Lys Lys Glu Leu Glu Gly Ala Gly Lys Ile
 885 890 895
 Ala Thr Glu Ala Ile Glu Asn Phe Arg Thr Val Val Ser Leu Thr Gln
 900 905 910
 Glu Gln Lys Phe Glu His Met Tyr Ala Gln Ser Leu Gln Val Pro Tyr
 915 920 925
 Arg Asn Ser Leu Arg Lys Ala His Ile Phe Gly Ile Thr Phe Ser Phe

930	935	940
Thr Gln Ala Met Met Tyr Phe Ser Tyr Ala Gly Cys Phe Arg Phe Gly 945 950 955 960		
Ala Tyr Leu Val Ala His Lys Leu Met Ser Phe Glu Asp Val Leu Leu 965 970 975		
Val Phe Ser Ala Val Val Phe Gly Ala Met Ala Val Gly Gln Val Ser 980 985 990		
Ser Phe Ala Pro Asp Tyr Ala Lys Ala Lys Ile Ser Ala Ala His Ile 995 1000 1005		
Ile Met Ile Ile Glu Lys Thr Pro Leu Ile Asp Ser Tyr Ser Thr Glu 1010 1015 1020		
Gly Leu Met Pro Asn Thr Leu Glu Gly Asn Val Thr Phe Gly Glu Val 1025 1030 1035 1040		
Val Phe Asn Tyr Pro Thr Arg Pro Asp Ile Pro Val Leu Gln Gly Leu 1045 1050 1055		
Ser Leu Glu Val Lys Lys Gly Gln Thr Leu Ala Leu Val Gly Ser Ser 1060 1065 1070		
Gly Cys Gly Lys Ser Thr Val Val Gln Leu Leu Glu Arg Phe Tyr Asp 1075 1080 1085		
Pro Leu Ala Gly Lys Val Leu Leu Asp Gly Lys Glu Ile Lys Arg Leu 1090 1095 1100		
Asn Val Gln Trp Leu Arg Ala His Leu Gly Ile Val Ser Gln Glu Pro 1105 1110 1115 1120		
Ile Leu Phe Asp Cys Ser Ile Ala Glu Asn Ile Ala Tyr Gly Asp Asn 1125 1130 1135		
Ser Arg Val Val Ser Gln Glu Glu Ile Val Arg Ala Ala Lys Glu Ala 1140 1145 1150		
Asn Ile His Ala Phe Ile Glu Ser Leu Pro Asn Lys Tyr Ser Thr Lys 1155 1160 1165		
Val Gly Asp Lys Gly Thr Gln Leu Ser Gly Gly Gln Lys Gln Arg Ile 1170 1175 1180		
Ala Ile Ala Arg Ala Leu Val Arg Gln Pro His Ile Leu Leu Leu Asp 1185 1190 1195 1200		
Glu Ala Thr Ser Ala Leu Asp Thr Glu Ser Glu Lys Val Val Gln Glu 1205 1210 1215		
Ala Leu Asp Lys Ala Arg Glu Gly Arg Thr Cys Ile Val Ile Ala His 1220 1225 1230		
Arg Leu Ser Thr Ile Gln Asn Ala Asp Leu Ile Val Val Phe Gln Asn 1235 1240 1245		
Gly Arg Val Lys Glu His Gly Thr His Gln Gln Leu Leu Ala Gln Lys 1250 1255 1260		

Gly Ile Tyr Phe Ser Met Val Ser Val Gln Ala Gly Thr Ile
 1265 1270 1275

<210> 67
 <211> 579
 <212> PRT
 <213> Homo sapiens

<400> 67
 Met Asp Leu Glu Gly Asp Arg Asn Gly Gly Ala Lys Lys Lys Asn Phe
 1 5 10 15

Phe Lys Leu Asn Asn Lys Ser Glu Lys Asp Lys Lys Glu Lys Lys Pro
 20 25 30

Thr Val Ser Val Phe Ser Met Phe Arg Tyr Ser Asn Trp Leu Asp Lys
 35 40 45

Leu Tyr Met Val Val Gly Thr Leu Ala Ala Ile Ile His Gly Ala Gly
 50 55 60

Leu Pro Leu Met Met Leu Val Phe Gly Glu Met Thr Asp Ile Phe Ala
 65 70 75 80

Asn Ala Gly Asn Leu Glu Asp Leu Met Ser Asn Ile Thr Asn Arg Ser
 85 90 95

Asp Ile Asn Asp Thr Gly Phe Phe Met Asn Leu Glu Glu Asp Met Thr
 100 105 110

Arg Tyr Ala Tyr Tyr Tyr Ser Gly Ile Gly Ala Gly Val Leu Val Ala
 115 120 125

Ala Tyr Ile Gln Val Ser Phe Trp Cys Leu Ala Ala Gly Arg Gln Ile
 130 135 140

His Lys Ile Arg Lys Gln Phe Phe His Ala Ile Met Arg Gln Glu Ile
 145 150 155 160

Gly Trp Phe Asp Val His Asp Val Gly Glu Leu Asn Thr Arg Leu Thr
 165 170 175

Asp Asp Val Ser Lys Ile Asn Glu Gly Ile Gly Asp Lys Ile Gly Met
 180 185 190

Phe Phe Gln Ser Met Ala Thr Phe Phe Thr Gly Phe Ile Val Gly Phe
 195 200 205

Thr Arg Gly Trp Lys Leu Thr Leu Val Ile Leu Ala Ile Ser Pro Val
 210 215 220

Leu Gly Leu Ser Ala Ala Val Trp Ala Lys Ile Leu Ser Ser Phe Thr
 225 230 235 240

Asp Lys Glu Leu Leu Ala Tyr Ala Lys Ala Gly Ala Val Ala Glu Glu
 245 250 255

Val Leu Ala Ala Ile Arg Thr Val Ile Ala Phe Gly Gly Gln Lys Lys

260					265					270					
Glu	Leu	Glu	Arg	Tyr	Asn	Lys	Asn	Leu	Glu	Glu	Ala	Lys	Arg	Ile	Gly
	275						280					285			
Ile	Lys	Lys	Ala	Ile	Thr	Ala	Asn	Ile	Ser	Ile	Gly	Ala	Ala	Phe	Leu
	290					295					300				
Leu	Ile	Tyr	Ala	Ser	Tyr	Ala	Leu	Ala	Phe	Trp	Tyr	Gly	Thr	Thr	Leu
	305					310					315				320
Val	Leu	Ser	Gly	Glu	Tyr	Ser	Ile	Gly	Gln	Val	Leu	Thr	Val	Phe	Phe
				325					330					335	
Ser	Val	Leu	Ile	Gly	Ala	Phe	Ser	Val	Gly	Gln	Ala	Ser	Pro	Ser	Ile
			340					345					350		
Glu	Ala	Phe	Ala	Asn	Ala	Arg	Gly	Ala	Ala	Tyr	Glu	Ile	Phe	Lys	Ile
		355					360					365			
Ile	Asp	Asn	Lys	Pro	Ser	Ile	Asp	Ser	Tyr	Ser	Lys	Ser	Gly	His	Lys
	370					375					380				
Pro	Asp	Asn	Ile	Lys	Gly	Asn	Leu	Glu	Phe	Arg	Asn	Val	His	Phe	Ser
	385					390					395				400
Tyr	Pro	Ser	Arg	Lys	Glu	Val	Lys	Ile	Leu	Lys	Gly	Leu	Asn	Leu	Lys
				405					410					415	
Val	Gln	Ser	Gly	Gln	Thr	Val	Ala	Leu	Val	Gly	Asn	Ser	Gly	Cys	Gly
			420					425					430		
Lys	Ser	Thr	Thr	Val	Gln	Leu	Met	Gln	Arg	Leu	Tyr	Asp	Pro	Thr	Glu
		435					440					445			
Gly	Met	Val	Ser	Val	Asp	Gly	Gln	Asp	Ile	Arg	Thr	Ile	Asn	Val	Arg
	450					455					460				
Phe	Leu	Arg	Glu	Ile	Ile	Gly	Val	Val	Ser	Gln	Glu	Pro	Val	Leu	Phe
	465					470					475				480
Ala	Thr	Thr	Ile	Ala	Glu	Asn	Ile	Arg	Tyr	Gly	Arg	Glu	Asn	Val	Thr
			485					490						495	
Met	Asp	Glu	Ile	Glu	Lys	Ala	Val	Lys	Glu	Ala	Asn	Ala	Tyr	Asp	Phe
			500					505					510		
Ile	Met	Lys	Leu	Pro	His	Lys	Phe	Asp	Thr	Leu	Val	Gly	Glu	Arg	Gly
		515					520					525			
Ala	Gln	Leu	Ser	Gly	Gly	Gln	Lys	Gln	Arg	Ile	Ala	Ile	Ala	Arg	Ala
	530					535					540				
Leu	Val	Arg	Asn	Pro	Lys	Ile	Leu	Leu	Leu	Asp	Glu	Ala	Thr	Ser	Ala
	545					550					555				560
Leu	Asp	Thr	Glu	Ser	Glu	Ala	Glu	Val	Gln	Ala	Ala	Leu	Asp	Lys	Val
				565					570					575	
Ser	Arg	Leu													

<210> 68
 <211> 218
 <212> PRT
 <213> Homo sapiens

<400> 68
 Met Ser Arg Ser Lys Arg Asp Asn Asn Phe Tyr Ser Val Glu Ile Gly
 1 5 10 15
 Asp Ser Thr Phe Thr Val Leu Lys Arg Tyr Gln Asn Leu Lys Pro Ile
 20 25 30
 Gly Ser Gly Ala Gln Gly Ile Val Cys Ala Ala Tyr Asp Ala Ile Leu
 35 40 45
 Glu Arg Asn Val Ala Ile Lys Lys Leu Ser Arg Pro Phe Gln Asn Gln
 50 55 60
 Thr His Ala Lys Arg Ala Tyr Arg Glu Leu Val Leu Met Lys Cys Val
 65 70 75 80
 Asn His Lys Asn Ile Ile Gly Leu Leu Asn Val Phe Thr Pro Gln Lys
 85 90 95
 Ser Leu Glu Glu Phe Gln Asp Val Tyr Ile Val Met Glu Leu Met Asp
 100 105 110
 Ala Asn Leu Cys Gln Val Ile Gln Met Glu Leu Asp His Glu Arg Met
 115 120 125
 Ser Tyr Leu Leu Tyr Gln Met Leu Cys Gly Ile Lys His Leu His Ser
 130 135 140
 Ala Gly Ile Ile His Arg Asp Leu Lys Pro Ser Asn Ile Val Val Lys
 145 150 155 160
 Ser Asp Cys Thr Leu Lys Ile Leu Asp Phe Gly Leu Ala Arg Thr Ala
 165 170 175
 Gly Thr Ser Phe Met Met Thr Pro Tyr Val Val Thr Arg Tyr Tyr Arg
 180 185 190
 Ala Pro Glu Val Ile Leu Gly Met Gly Tyr Lys Glu Asn Gly Gly Arg
 195 200 205
 Met Gly Lys Gly Ile Phe Thr Arg Leu Gln
 210 215

<210> 69
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 69
 Met Ser Arg Ser Lys Arg Asp Asn Asn Phe Tyr Ser Val Glu Ile Gly
 1 5 10 15

Asp Ser Thr Phe Thr Val Leu Lys Arg Tyr Gln Asn Leu Lys Pro Ile
 20 25 30
 Gly Ser Gly Ala Gln Gly Ile Val Cys Ala Ala Tyr Asp Ala Ile Leu
 35 40 45
 Glu Arg Asn Val Ala Ile Lys Lys Leu Ser Arg Pro Phe Gln Asn Gln
 50 55 60
 Thr His Ala Lys Arg Ala Tyr Arg Glu Leu Val Leu Met Lys Cys Val
 65 70 75 80
 Asn His Lys Asn Ile Ile Gly Leu Leu Asn Val Phe Thr Pro Gln Lys
 85 90 95
 Ser Leu Glu Glu Phe Gln Asp Val Tyr Ile Val Met Glu Leu Met Asp
 100 105 110
 Ala Asn Leu Cys Gln Val Ile Gln Met Glu Leu Asp His Glu Arg Met
 115 120 125
 Ser Tyr Leu Leu Tyr Gln Met Leu Cys Gly Ile Lys His Leu His Ser
 130 135 140
 Ala Gly Ile Ile His Arg Asp Leu Lys Pro Ser Asn Ile Val Val Lys
 145 150 155 160
 Ser Asp Cys Thr Leu Lys Ile Leu Asp Phe Gly Leu Ala Arg Thr Ala
 165 170 175
 Gly Thr Ser Phe Met Met Thr Pro Tyr Val Val Thr Arg Tyr Tyr Arg
 180 185 190
 Ala Pro Glu Val Ile Leu Gly Met Gly Tyr Lys Glu Asn Val Asp Leu
 195 200 205
 Trp Ser Val Gly Cys Ile Met Gly Glu Met Val Cys His Lys Ile Leu
 210 215 220
 Phe Pro Gly Arg Asp Tyr Ile Asp Gln Trp Asn Lys Val Ile Glu Gln
 225 230 235 240
 Leu Gly Thr Pro Cys Pro Glu Phe Met Lys Lys Leu Gln Pro Thr Val
 245 250 255
 Arg Thr Tyr Val Glu Asn Arg Pro Lys Tyr Ala Gly Tyr Ser Phe Glu
 260 265 270
 Lys Leu Phe Pro Asp Val Leu Phe Pro Ala Asp Ser Glu His Asn Lys
 275 280 285
 Leu Lys Ala Ser Gln Tyr Phe Leu Gln Ile Cys Thr Phe Asn Pro Ile
 290 295 300
 Trp Gly Val
 305

<210> 70

<211> 339
 <212> PRT
 <213> Homo sapiens

<400> 70

Met	Ser	Arg	Ser	Lys	Arg	Asp	Asn	Asn	Phe	Tyr	Ser	Val	Glu	Ile	Gly	1	5	10	15
Asp	Ser	Thr	Phe	Thr	Val	Leu	Lys	Arg	Tyr	Gln	Asn	Leu	Lys	Pro	Ile	20	25	30	
Gly	Ser	Gly	Ala	Gln	Gly	Ile	Val	Cys	Ala	Ala	Tyr	Asp	Ala	Ile	Leu	35	40	45	
Glu	Arg	Asn	Val	Ala	Ile	Lys	Lys	Leu	Ser	Arg	Pro	Phe	Gln	Asn	Gln	50	55	60	
Thr	His	Ala	Lys	Arg	Ala	Tyr	Arg	Glu	Leu	Val	Leu	Met	Lys	Cys	Val	65	70	75	80
Asn	His	Lys	Asn	Ile	Ile	Gly	Leu	Leu	Asn	Val	Phe	Thr	Pro	Gln	Lys	85	90	95	
Ser	Leu	Glu	Glu	Phe	Gln	Asp	Val	Tyr	Ile	Val	Met	Glu	Leu	Met	Asp	100	105	110	
Ala	Asn	Leu	Cys	Gln	Val	Ile	Gln	Met	Glu	Leu	Asp	His	Glu	Arg	Met	115	120	125	
Ser	Tyr	Leu	Leu	Tyr	Gln	Met	Leu	Cys	Gly	Ile	Lys	His	Leu	His	Ser	130	135	140	
Ala	Gly	Ile	Ile	His	Arg	Asp	Leu	Lys	Pro	Ser	Asn	Ile	Val	Val	Lys	145	150	155	160
Ser	Asp	Cys	Thr	Leu	Lys	Ile	Leu	Asp	Phe	Gly	Leu	Ala	Arg	Thr	Ala	165	170	175	
Gly	Thr	Ser	Phe	Met	Met	Thr	Pro	Tyr	Val	Val	Thr	Arg	Tyr	Tyr	Arg	180	185	190	
Ala	Pro	Glu	Val	Ile	Leu	Gly	Met	Gly	Tyr	Lys	Glu	Asn	Val	Asp	Leu	195	200	205	
Trp	Ser	Val	Gly	Cys	Ile	Met	Gly	Glu	Met	Val	Cys	His	Lys	Ile	Leu	210	215	220	
Phe	Pro	Gly	Arg	Asp	Tyr	Ile	Asp	Gln	Trp	Asn	Lys	Val	Ile	Glu	Gln	225	230	235	240
Leu	Gly	Thr	Pro	Cys	Pro	Glu	Phe	Met	Lys	Lys	Leu	Gln	Pro	Thr	Val	245	250	255	
Arg	Thr	Tyr	Val	Glu	Asn	Arg	Pro	Lys	Tyr	Ala	Gly	Tyr	Ser	Phe	Glu	260	265	270	
Lys	Leu	Phe	Pro	Asp	Val	Leu	Phe	Pro	Ala	Asp	Ser	Glu	His	Asn	Lys	275	280	285	
Leu	Lys	Ala	Ser	Gln	Ala	Arg	Asp	Leu	Leu	Ser	Lys	Met	Leu	Val	Ile	290	295	300	

Asp Ala Ser Lys Arg Ile Ser Val Asp Glu Ala Leu Gln His Pro Tyr
305 310 315 320

Ile Asn Val Trp Tyr Asp Pro Ser Glu Ala Glu Ala Arg Ser Cys Lys
325 330 335

Leu Phe Ser

<210> 71

<211> 178

<212> PRT

<213> Homo sapiens

<400> 71

Ala Arg Ser Gly Phe Tyr Arg Gln Glu Val Thr Lys Thr Ala Trp Glu
1 5 10 15

Val Arg Ala Val Tyr Arg Asp Leu Gln Pro Val Gly Ser Gly Ala Tyr
20 25 30

Gly Ala Val Cys Ser Ala Val Asp Gly Arg Thr Gly Ala Lys Val Ala
35 40 45

Ile Lys Lys Leu Tyr Arg Pro Phe Gln Ser Glu Leu Phe Ala Lys Arg
50 55 60

Ala Tyr Arg Glu Leu Arg Leu Leu Lys His Met Arg His Glu Asn Val
65 70 75 80

Ile Gly Leu Leu Asp Val Phe Thr Pro Asp Glu Thr Leu Asp Asp Phe
85 90 95

Thr Asp Phe Tyr Leu Val Met Pro Phe Met Gly Thr Asp Leu Gly Lys
100 105 110

Leu Met Lys His Glu Lys Leu Gly Glu Asp Arg Ile Gln Phe Leu Val
115 120 125

Tyr Gln Met Leu Lys Gly Leu Arg Tyr Ile His Ala Ala Gly Ile Ile
130 135 140

His Arg Val Ser Pro Gly Gly Glu Ala Ala His Gln Pro Ser Pro Ser
145 150 155 160

Ala Ile Pro Pro Pro Pro Arg Pro Thr Cys Glu Asp Val Met Gly Ser
165 170 175

Gly Cys

<210> 72

<211> 648

<212> PRT

<213> Homo sapiens

<400> 72

Met	Ser	Pro	Phe	Leu	Arg	Ile	Gly	Leu	Ser	Asn	Phe	Asp	Cys	Gly	Ser
1				5					10					15	
Cys	Gln	Ser	Cys	Gln	Gly	Glu	Ala	Val	Asn	Pro	Tyr	Cys	Ala	Val	Leu
			20					25					30		
Val	Lys	Glu	Tyr	Val	Glu	Ser	Glu	Asn	Gly	Gln	Met	Tyr	Ile	Gln	Lys
		35					40					45			
Lys	Pro	Thr	Met	Tyr	Pro	Pro	Trp	Asp	Ser	Thr	Phe	Asp	Ala	His	Ile
	50					55					60				
Asn	Lys	Gly	Arg	Val	Met	Gln	Ile	Ile	Val	Lys	Gly	Lys	Asn	Val	Asp
65					70					75					80
Leu	Ile	Ser	Glu	Thr	Thr	Val	Glu	Leu	Tyr	Ser	Leu	Ala	Glu	Arg	Cys
				85					90					95	
Arg	Lys	Asn	Asn	Gly	Lys	Thr	Glu	Ile	Trp	Leu	Glu	Leu	Lys	Pro	Gln
			100					105						110	
Gly	Arg	Met	Leu	Met	Asn	Ala	Arg	Tyr	Phe	Leu	Glu	Met	Ser	Asp	Thr
		115					120					125			
Lys	Asp	Met	Asn	Glu	Phe	Glu	Thr	Glu	Gly	Phe	Phe	Ala	Leu	His	Gln
	130					135					140				
Arg	Arg	Gly	Ala	Ile	Lys	Gln	Ala	Lys	Val	His	His	Val	Lys	Cys	His
145					150					155					160
Glu	Phe	Thr	Ala	Thr	Phe	Phe	Pro	Gln	Pro	Thr	Phe	Cys	Ser	Val	Cys
				165					170					175	
His	Glu	Phe	Val	Trp	Gly	Leu	Asn	Lys	Gln	Gly	Tyr	Gln	Cys	Arg	Gln
			180					185					190		
Cys	Asn	Ala	Ala	Ile	His	Lys	Lys	Cys	Ile	Asp	Lys	Val	Ile	Ala	Lys
		195					200					205			
Cys	Thr	Gly	Ser	Ala	Ile	Asn	Ser	Arg	Glu	Thr	Met	Phe	His	Lys	Glu
	210					215					220				
Arg	Phe	Lys	Ile	Asp	Met	Pro	His	Arg	Phe	Lys	Val	Tyr	Asn	Tyr	Lys
225					230					235					240
Ser	Pro	Thr	Phe	Cys	Glu	His	Cys	Gly	Thr	Leu	Leu	Trp	Gly	Leu	Ala
				245					250					255	
Arg	Gln	Gly	Leu	Lys	Cys	Asp	Ala	Cys	Gly	Met	Asn	Val	His	His	Arg
			260					265					270		
Cys	Gln	Thr	Lys	Val	Ala	Asn	Leu	Cys	Gly	Ile	Asn	Gln	Lys	Leu	Met
		275					280					285			
Ala	Glu	Ala	Leu	Ala	Met	Ile	Glu	Ser	Thr	Gln	Gln	Ala	Arg	Cys	Leu
	290					295						300			
Arg	Asp	Thr	Glu	Gln	Ile	Phe	Arg	Glu	Gly	Pro	Val	Glu	Ile	Gly	Leu
305					310					315					320

Pro Cys Ser Ile Lys Asn Glu Ala Arg Pro Pro Cys Leu Pro Thr Pro
 325 330 335
 Gly Lys Arg Glu Pro Gln Gly Ile Ser Trp Glu Ser Pro Leu Asp Glu
 340 345 350
 Val Asp Lys Met Cys His Leu Pro Glu Pro Glu Leu Asn Lys Glu Arg
 355 360 365
 Pro Ser Leu Gln Ile Lys Leu Lys Ile Glu Asp Phe Ile Leu His Lys
 370 375 380
 Met Leu Gly Lys Gly Ser Phe Gly Lys Val Phe Leu Ala Glu Phe Lys
 385 390 395 400
 Lys Thr Asn Gln Phe Phe Ala Ile Lys Ala Leu Lys Lys Asp Val Val
 405 410 415
 Leu Met Asp Asp Asp Val Glu Cys Thr Met Val Glu Lys Arg Val Leu
 420 425 430
 Ser Leu Ala Trp Glu His Pro Phe Leu Thr His Met Phe Cys Thr Phe
 435 440 445
 Gln Thr Lys Glu Asn Leu Phe Phe Val Met Glu Tyr Leu Asn Gly Gly
 450 455 460
 Asp Leu Met Tyr His Ile Gln Ser Cys His Lys Phe Asp Leu Ser Arg
 465 470 475 480
 Ala Thr Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Gln Phe Leu His
 485 490 495
 Ser Lys Gly Ile Val Tyr Arg Asp Leu Lys Leu Asp Asn Ile Leu Leu
 500 505 510
 Asp Lys Asp Gly His Ile Lys Ile Ala Asp Phe Gly Met Cys Lys Glu
 515 520 525
 Asn Met Leu Gly Asp Ala Lys Thr Asn Thr Phe Cys Gly Thr Pro Asp
 530 535 540
 Tyr Ile Ala Pro Glu Ile Leu Leu Gly Gln Lys Tyr Asn His Ser Val
 545 550 555 560
 Asp Trp Trp Ser Phe Gly Val Leu Leu Tyr Glu Met Leu Ile Gly Gln
 565 570 575
 Ser Pro Phe His Gly Gln Asp Glu Glu Glu Leu Phe His Ser Ile Arg
 580 585 590
 Met Asp Asn Pro Phe Tyr Pro Arg Trp Leu Glu Lys Glu Ala Lys Asp
 595 600 605
 Leu Leu Val Lys Val Arg Ser Glu Ala Lys Ser Val Phe Ile Arg Arg
 610 615 620
 Ala Leu Gly Leu Leu Val Ser Phe Leu Phe Leu Leu Val Ser Asn Leu
 625 630 635 640
 His Val Ala Asn Asn Asp Tyr Tyr